# VITALS/MEASUREMENTS

# TECHNICAL MANUAL AND PACKAGE SECURITY GUIDE

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# Preface

The Vitals/Measurements Technical Manual and Package Security Guide has been developed for IRMS (Information Resource Management Service) and CIOFO (Chief Information Office Field Office) support personnel and contains technical information on the application. The content covers: software implementation and maintenance, routines descriptions, a file list, an exported option list, cross-references, archiving and purging, callable routines, external relations, package-wide variables, and on-line documentation.

The Vitals/Measurements Technical Manual and Package Security Guide is one of four manuals associated with the application. Information discussing the functionality of the software's menus and options is found in the Vitals/Measurements User Manual. Information critical to the successful installation of the software can be found in the Vitals/Measurements Installation Guide. New release changes can be found in the Vitals/Measurements Release Notes.

# Table of Contents

# Introduction

The Vitals/Measurements application is designed to store in the patient's electronic medical record all vital signs and various measurements associated with a patient's hospital stay or outpatient clinic visit. Data can be accessed by several VISTA (Veterans Health Information Systems and Technology Architecture) applications (e.g., Health Summary, Pharmacy) that interface with the Vitals/Measurements application .

Functionality:

- Supports documentation of a patient's vital signs (e.g., temperature, pulse, and respiration).
- Tracks a patient's height, weight, central venous pressure (CVP), circumference/girth and oxygen saturation via oximetry with supplemental oxygen information.
- Supports documentation of detailed or positional blood pressures for a patient (i.e., bilateral blood pressures taken in a sitting, standing and lying position).
- Associates qualifiers (alpha characters appended to the measurement's numeric value) to provide a more detailed description of the patient's vitals/measurements.
- Contains detailed help screens to assist users in associating appropriate qualifiers with the patient vitals/measurements.
- Permits users to add site specific qualifiers that can be viewed on edit displays.
- Prints temperature, height, weight, CVP and circumference/girth in both metric equivalents and U.S. customary units.
- Prints a patient's Body Mass Index (BMI) which is calculated by dividing the person's weight in kilograms by the square of his height in meters.
- Prints patient's cumulative measurements on the Vitals Flow Sheet (SF511) and the Cumulative Vitals Report.
- Displays latest information on all of the patient's vitals/measurements in both metric equivalents and U.S. customary units along with the date/time the information was obtained.
- Prints an expanded vitals graphic report which includes the patient's intake and output when present in the patient's database (refer to the Intake and Output application).

- Prints blood pressure graphic reports.

- Interfaces with the Nursing software to display data on various nursing reports including the End of Shift Report.

- Interfaces with the Order Entry/Results Reporting and the Computerized Patient Record System (CPRS) to support ordering of vital signs and other measurements.

- Allows facilities to establish hospital-wide high and low values for each vital sign or measurement

- Identifies abnormal patient values on vitals/measurements reports (those values outside the high and low range).

- Prints the following patient measurements in a linear graphic report format:
  Temperature and pulse.
  Blood pressure.
  Weight.
  Pulse oximetry and respiration.

- Audiometry, fundal height, fetal heart tones, head circumference, hearing, tonometry, vision corrected and vision uncorrected measurements are added to the GMRV Vital Type (#120.51) file for use by the Patient Care Encounter (PCE) application.

- Prints a Vitals Category/Qualifier Table that lists all vital types (e.g., temperature, pulse) and their associated categories (e.g., location, site, method), and qualifiers (e.g., oral, tympanic, radial) used in the application.

- Supports facility specific defaults for temperature and pulse.

- Supports the archiving and purging of patient measurements, that are no longer required on the production account, through FileMan.

- Supports multiple changing of documentation parameters (e.g., date/time taken, vitals signs/measurements combination, and patient/location combination) through the Vitals/Measurements Data Entry option without leaving the menu.

- Interfaces with Health Summary and passes all patient vitals/measurements information within a specific date range.

- Records a reason for the omission of a patient's vitals/measurements.

- Allows the entry of multiple Quick Order protocols with a single vital type.

# Chapter 1 Implementation and Maintenance

**Description:**

This chapter provides guidelines for implementing the Vitals/Measurements application. It is important to complete all of the steps contained in this chapter before assigning menu options to clinical staff.

**Virgin Installation of Software:**

The following steps should be followed when the Vitals/Measurements software is installed in an environment where no previous installation of the Vitals/Measurements application has taken place.

1. Setting up the software environment.

Information Resource Management Services (IRMS) staff should install the software using the Installation Guide in a test environment prior to installing the software in the production (VAH) account. The following V*IST*A packages should reside in the environment where the Vitals/Measurements application is to be installed:

a. VA FileMan V. 21 or greater,
b. Kernel V. 8.0 or greater,
c. Kernel Toolkit V. 7.3 or greater,
d. PIMS (MAS) V. 5.3 or greater,
e. Intake and Output V. 4.0,
f. Health Summary V. 2.7 or greater.
g. If you are using Order Entry/Results Reporting (OE/RR), V. 2.5 or greater, the Administration Schedule (#51.1) file of Inpatient Medications V. 4.5 or greater must be installed.

The Vitals/Measurements software must be installed before the Nursing V. 4.0 application can be installed because specific Nursing V. 4.0 options are dependent upon the Vitals/ Measurements routines. Data entered into the test environment CANNOT be transferred into the production environment. It is recommended that a limited amount of data be entered into the test directory in order for the user to become familiar with the application and to establish an acceptable training data base.

2. Name spacing and file listing.

Vitals/Measurements is found in the GMRV namespace. All routines, templates and options begin with GMRV. File numbers are in the range of 120.5 to 120.57 and are stored in the ^GMR and ^GMRD globals.

3. Editing site configurable files.

   a. The Edit Vitals Site Parameter File option edits the GMRV Vitals Parameters (#120.57) file.

   b. The Enter/Edit Vitals Qualifiers option edits the GMRV Vital Qualifier (#120.52) file.

   c. The Display Vitals Category/Qualifier Table option displays the GMRV Vital Category (#120.53) file.

   d. The Edit Administration Schedules File option edits the Administration Schedule (#51.1) file.

   e. The Create Vital Measurement Quick Order Protocol option edits the Protocol (#101) file.

Review the above populated site configurable files. Files (a) through (c) are used in the screen displays associated with editing patient vitals/measurements. Files (d) and (e) must be populated if OE/RR is implemented at your facility. The options which allow the application coordinator to edit the file's data are all located in the GMRV Manager Menu (i.e., Vitals/Measurements Site File Menu, (option 4)). Refer to Vitals/Measurements User Manual, Chapter 2 for additional information.

4. Queueing TaskMan jobs.

No queued TaskMan jobs are associated with this application.

5. Accessing menus.

There is a separate set of menu options under GMRV and NUR (Nursing). The GMRV software identifies a patient's hospital location by using the Hospital Location (#44) file. The Nursing software hooks into the GMRV software and uses the Nursing Location (#211.4) file. In the Nursing package Vitals/Measurements is found under Patient Care Data, Enter/Edit. Vitals/Measurements includes: Vitals/Measurement Data Entry and Edit a Vital/Measurement Entered in Error. Vitals/ Measurements Results Reporting is found under Patient Care Data, Print.

6. Assigning menus.

The GMRV menu contains the following menus or options:

```
Select OPTION NAME:  GMRVMGR              Vitals/Measurement

     1   Vitals/Measurement Data Entry ...
     2   Vitals/Measurements Results Reporting ...
     3   Edit a Vital/Measurement Entered in Error
     4   Vitals/Measurements Site Files Menu ...
```

Clinical staff should be assigned options 1 through 3. Option 4 should be assigned to the Vitals/Measurements application coordinator. The Vitals/Measurements Site Files menu is also found under the Clinical Site File Functions menu, in the Nursing Application.

7. Printer issues.

The application's reports were designed to be used with the Kyocera F-800A laser printers, HP LaserJet III printers, and the HP LaserJet 4 printers, but they can also be printed on dot matrix printers. When using a programmable graphic laser printer the setups need to be checked, to insure the correct format on the printed page.

The following special printer setup is for Kyocera type printers:

a. Ensure the existence of a Kyocera entry in the Terminal Type file. This device compresses print and has a margin width of 132 characters. This entry may be exported by Kernel, or you may have to set up your own entry.

   1) The Name (#.01) field should begin with the characters P-KYOCERA e.g., P-KYOCERA-P16. This is important as the software will not recognize the device as a Kyocera printer if this Terminal Type entry is not set up properly.

   2) The Right Margin (#1) field must be 132.

b. Create a Device file entry for the Kyocera printer.

   1) The Name (#.01) field should contain the word KYOCERA. This isn't required, but will make selection of this device by users easier.

   2) Sub-Type (#3) field should point to a Terminal Type entry that fits the characteristics defined above in (a-1).

   3) Margin Width (#9) field should be 132.

c. In the Kyocera printer, PRESCRIBE Macro Buffer Size (H0)=99.
   To reprogram your printer,

   1) Type: `!R! RES; FRPO H0, 99; EXIT;` on your terminal/input device.

2) Print this code on your Kyocera printer (using appropriate print commands). This may be done through a mail message.

3) Turn off the printer for a few seconds, then place the printer back on line (by turning it on). The printer will then be ready to print the linear graphic reports (e.g., SF511).

The following special printer setup is for HP LASERJET III, HP LASERJET 4 and HP LASERJET 5 printers:

a. Ensure the existence of a HP LASERJET entry in the Terminal Type file. This device compresses print and has a margin width of 132 characters. This entry may be exported by Kernel, or you may have to set up your own entry.

1) The Name (#.01) field should begin with the characters P-HPLASER e.g., P-HPLASER-L180. This is important as the Vitals/Measurements software will not recognize the device as an HP LASERJET printer if this Terminal Type entry is not set up properly.

2) The Right Margin (#1) field must be 132.

b. Create a Device file entry for the HP LASERJET printer.

1) The Name (#.01) field should contain the word HPLASER. This isn't required, but will make selection of this device by users easier.

2) Sub-Type (#3) field should point to a Terminal Type entry that fits the characteristics defined above in (b-1).

3) Margin Width (#9) field should be 132.

4) Suppress Form Feed at Close (#11.2) field should be set to YES.

Note: If the printer is not set up correctly, it will effect the printed output. KYOCERA and HPLASER are key words in the routine to identify which printer is being used, and IRMS must edit the Device file so the word KYOCERA or HPLASER appears in the name of the device (e.g., KYOCERA-PORT).

### Non-Virgin Installation of Software:

Follow steps 1 through 7 above when installing the software in an environment where a previous version of the application has been installed.

**Implementation Considerations:**

Some sites prefer to delay implementation of the software until they have a point of care data entry system, but this software can be implemented without a point of care system. Vital sign entry can be accomplished by ancillary service personnel, (e.g., PIMS, Dietetics, Pharmacy). Interested users of this software are encouraged to form a committee to work cooperatively on the implementation and training of the package. Setting up test wards is a good way to begin a cooperative implementation effort. The Vitals/Measurements module is appropriate for all personnel who obtain and record patient vitals/measurements. Conceivably this module could be used by nursing, dietetics, medicine, and other disciplines as appropriate.

You may want to involve the Clinical Executive Committee in the review of the Vital Site Parameter file. This facilitates station wide agreement on what the abnormal values will be. It also encourages physician use of the software.

**Resource Requirements:**

The minimal hardware requirements for the software are two CRTs and one printer per location. In addition to this, the following statistics regarding the disk storage requirements of the software were compiled by the Alpha/Beta test sites.

| Globals | Type of Data | Size |
|---|---|---|
| DDs | | 40 k |
| GMR | Patient data for the Text Generator, Vitals/Measurements and Intake and Output Modules | 25-75 k/ patient |
| GMRD | Static data for the Text Generator, Vitals/Measurements and Intake and Output Modules | 10 k depending on the global efficiency |

# Chapter 2 Routine Descriptions

```
GMRVADM   ;HIRMFO/YH-Determine Patient's Admission, Discharge and Absence
Status ;10/1/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVALL0  ;HIRMFO/YH-ENTER/EDIT V/M AND OTHER MEASUREMENTS ;1/21/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVALL1  ;HIRMFO/YH-ENTER/EDIT V/M AND OTHER MEASUREMENTS ;7/16/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVBMI   ;HIRMFO/YH-EXTRACT HEIGHT TO CALCULATE BMI FOR WEIGHT; 3/24/97
           ;;4.0;Vitals/Measurements;;Apr 25, 1997
GMRVBP0   ;HIRMFO/YH-KYOCERA B/P GRAPH - DATA ARRAY ;11/1/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVBP1   ;HIRMFO/YH-KYOCERA B/P GRAPH - GRAPH DATA ;11/10/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVBP2   ;HIRMFO/JC,YH-KYOCERA BP GRAPH MACRO ;11/10/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVBP3   ;HIRMFO/JYC,YH-KYOCERA B/P GRAPH MACRO (CONT.) ;6/19/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVBP4   ;HIRMFO/JC,YH-KYOCERA B/P GRAPH - MACRO CALL ;11/10/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVBP5   ;HIRMFO/YH-KYOCERA B/P GRAPH - ^TMP DATA ;10/27/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVCAQU  ;HIRMFO/YH-DISPLAY CATEGORY/QUALIFIER TABLE FOR VITAL TYPE ;12/31/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVCHAR  ;HIRMFO/YH-EXTRACT CHARACTERISTIC DATA ;7/30/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVDS0   ;HIRMFO/YH-DISPLAY LATEST VITALS/MEASUREMENTS ;12/19/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVDS1   ;HIRMFO/YH,RM-CURRENT VITAL SIGNS BY LOCATION ;1/17/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVDS2   ;HIRMFO/RM,YH-VITAL SIGNS DISPLAY ;6/28/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVED0   ;HIRMFO/RM,YH-VITAL SIGNS EDIT SHORT FORM ;7/10/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVED1   ;HIRMFO/RM,YH-VITAL SIGNS EDIT SHORT FORM (cont.) ;10/9/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVED2   ;HIRMFO/RM,YH-VITAL SIGNS EDIT SHORT FORM ;3/7/88
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVED3   ;HIRMFO/MD,YH-VITAL SIGNS EDIT SHORT FORM (cont.) ;1/14/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVED4   ;HIRMFO/RM,YH-VITAL SIGNS SHORT FORM ;7/10/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVED5   ;HIRMFO/YH-VITALS MEASUREMENTS APPLICATION PROGRAM INTERFACE EDIT
TMP ;1/17/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVED6   ;HIRMFO/YH-VM EDIT FOR PATIENT ON PASS OR REFUSE ;9/26/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVEE0   ;HIRMFO/RM,YH-ENTERED IN ERROR EDIT ;12/12/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVEE1   ;HIRMFO/RM,YH-ENTERED IN ERROR EDIT ;12/12/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVEE2   ;HIRMFO/RM,YH-ENTERED IN ERROR EDIT (cont.) ;12/12/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVEE3   ;HIRMFO/YH-ENTERED IN ERROR EDIT (cont.) ;12/12/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVER0   ;HIRMFO/RM,YH-REPORT OF VITALS ENTERED IN ERROR FOR A PATIENT
;10/30/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVER1   ;HIRMFO/RM,YH-REPORT OF VITALS ENTERED IN ERROR FOR A PATIENT
;1/17/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVFILE  ;HIRMFO/FT-Set V/M File Security ;3/5/97  16:41
           ;;4.0;Vitals/Measurements;;Mar 03, 1997
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GMRVFUT0  ;HIRMFO/RM-FILE UTILITIES FOR 120.5 FILE ;1/21/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVFUT2  ;HIRMFO/RM-FILE UTILITIES FOR 120.52 FILE ;7/22/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVFUT3  ;HIRMFO/RM-FILE UTILITIES FOR 120.53 FILE ;7/22/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVGR0   ;HIRMFO/MH,YH-VITALS GRAPH (PART 1) ;10/26/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVGR1   ;HIRMFO/MH,YH-VITALS GRAPH (PART 2) ;12/3/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVGR2   ;HIRMFO/JC,MH,YH-VITALS GRAPH KYOCERA DEFINE MACRO (PART 1) ;12/3/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVGR3   ;HIRMFO/JYC,MH,YH-VITALS GRAPH KYOCERA DEFINE MACRO (PART 2)
;6/19/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVGR4   ;HIRMFO/JC,MH,YH-VITALS GRAPH KYOCERA PRINT COMMANDS (PART 1) ;1-6-
92
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVGR5   ;HIRMFO/RM,YH-TMP TO EXTRACT DATA FROM IO PAKAGE ;11/7/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVGR6   ;HIRMFO/JC,MH,YH-VITALS GRAPH KYOCERA PRINT COMMANDS (PART 2) ;1-6-
92
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVGR7   ;HIRMFO/YH-VITALS GRAPH KYOCERA DEFINE MACRO FOR PULSE OX./CG/CVP
;3/18/97
           ;;4.0;Vitals/Measurements;;Apr 25, 1997
GMRVHB0   ;HIRMFO/YH-HP 3/4 B/P GRAPH - DATA ARRAY ;11/10/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHB1   ;HIRMFO/YH-HP 3/4 B/P GRAPH - FORM ;11/10/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHB2   ;HIRMFO/YH-HP 3/4 B/P GRAPH - BOX DATA ;11/10/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHB3   ;HIRMFO/YH-HP 3/4 B/P GRAPH - ID ;10/27/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHB4   ;HIRMFO/YH-HP 3/4 B/P GRAPH - ^TMP DATA ;11/04/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHG0   ;HIRMFO/YH-HP 3/4 SF 511 GRAPH - DATA ARRAY ;10/27/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHG1   ;HIRMFO/YH-HP 3/4 SF511 GRAPH - FORM ;11/3/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHG2   ;HIRMFO/YH-HP 3/4 SF 511 GRAPH - BOX DATA ;1/16/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHG3   ;HIRMFO/YH-HP 3/4 SF 511 GRAPH - ID ;12/3/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHG4   ;HIRMFO/YH-HP 3/4 SF 511 GRAPH - ^TMP DATA ;10/7/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHPO0  ;HIRMFO/YH-HP LASER PULSE OXIMETRY/RESP. GRAPH - DATA ARRAY ;2/4/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHPO1  ;HIRMFO/YH-HP LASER PULSE OXIMETRY/RESP. GRAPH - FORM ;2/5/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHPO2  ;HIRMFO/YH-HP LASER PULSE OXIMETRY/RESP. GRAPH - BOX DATA ;2/5/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHPO3  ;HIRMFO/YH-HP LASER PULSE OXIMETRY/RESP. GRAPH - ^TMP DATA ;2/4/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHW0   ;HIRMFO/YH-HP 3/4 WEIGHT CHART - DATA ARRAY ;11/15/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHW1   ;HIRMFO/YH-HP 3/4 WEIGHT CHART - FORM AND GRAPH ;11/16/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVHW2   ;HIRMFO/YH-HP 3/4 WEIGHT CHART - BOX DATA ;11/16/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVKPO0  ;HIRMFO/YH-KYOCERA PULSE OXIMETRY/RESP. GRAPH - DATA ARRAY ;2/6/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVKPO1  ;HIRMFO/YH-KYOCERA PULSE OXIMETRY/RESP. GRAPH - GRAPH DATA ;2/4/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVKPO2  ;HIRMFO/YH-KYOCERA PULSE OXIMETRY/RESP. MACRO-1 ;2/6/97
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           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVKPO3   ;HIRMFO/YH-KYOCERA PULSE OXIMETRY/RESP. GRAPH - MACRO 2 ;2/7/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVKPO4   ;HIRMFO/YH-VITALS GRAPH KYOCERA PRINT COMMANDS (PART 1) ;1-6-92
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVORC0   ;HIRMFO/RM,MD-CANCEL AND PURGE ACTIONS FOR AN ORDER ;4/15/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVORD0   ;HISC/RM,YH-OE/RR PRINT ACTION HOOKS ;11/20/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVORDG   ;HIRMFO/RM-DGOERR EVENT DRIVER INTERFACE. ;4/2/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVORE0   ;HIRMFO/RM/YH-DRIVER TO ENTER VITAL/MEASUREMENTS ORDERS ;8/16/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVORE1   ;HIRMFO/RM-ORDER ENTRY ACTION (Cont.) ;11/20/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVORE2   ;HIRMFO/RM,MD-USER PROMPT ROUTINE ;12/10/96  11:47
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVORE3   ;HIRMFO/MD,RM-ENTRY TO STORE DATA FOR BOTH GMR ORDER RECORDS
;4/15/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVOREQ   ;HIRMFO/MD,FT-QUICK ORDER PROTOCOL CREATION ;11/11/96  11:02
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVPCE0   ;HIRMFO/RM-Data Event Driver for Vitals ;7/9/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVPCE1   ;HIRMFO/RM-PCE Interface code ;8/2/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVPCE2   ;HIRMFO/RM-V/M Help for AICS ;6/28/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVPCE3   ;HIRMFO/RM-V/M Data Validation for AICS ;7/10/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVQUAL   ;HIRMFO/YH-VITAL QUALIFIERS ;8/22/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVSAS0   ;HIRMFO/RM,YH-CALCULATE ABNORMAL V/S ;09/11/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVSC0    ;HIRMFO/RM,MD,YH-CUMULATIVE VITALS/MEASUREMENTS FOR PATIENT OVER
GIVEN DATE RANGE ;7/31/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVSC1    ;HIRMFO/YH-CUMULATIVE V/M - CONTINUED ;7/31/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVSC2    ;HIRMFO/YH-CUMULATIVE V/M - CONTINUED ;7/31/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVSITE   ;HIRMFO/YH-V/M SITEFILE EDIT/ENTRY ;12/9/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVSR0    ;HIRMFO/RM,YH-VITAL SIGNS RECORD SF 511 ;1/17/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVSR1    ;HIRMFO/RM,YH-PATIENT VITAL SIGNS-I/O SF 511 GRAPH - 1 ;11/6/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVSR2    ;HIRMFO/YH-PATIENT VITAL SIGNS-I/O SF 511 GRAPH - 2 ;11/6/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVUT0    ;HIRMFO/RM,YH-INPUT TRANSFORMS FOR VITAL TYPES ;1/23/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVUT1    ;HIRMFO/YH-VITAL SIGNS INFORMATION ;6/11/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVUT2    ;HIRMFO/YH,RM-ENTRY TO GATHER PATIENT VITAL/MEASURMENT DATA
;12/13/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVUT3    ;HIRMFO/YH-VITAL MEASUREMENT SITE/QUALIFIER SELECTIO ;1/21/97
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVUTL    ;HIRMFO/RM,MD-CALLABLE ENTRY POINTS FOR PROGRAMMER UTILITIES
;12/7/90
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVUTL1   ;HIRMFO/YH-VITALS/MEASUREMENTS UTILITY ;9/10/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVVS0    ;HIRMFO/YH-PATIENT INTAKE/OUTPUT REPORT ;2/25/91
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
```

```
GMRVVS1   ;HIRMFO/RM,YH-PATIENT VITAL SIGNS-I/O SF 511 GRAPH - 1 ;7/27/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVVS2   ;HIRMFO/YH-PATIENT VITAL SIGNS-I/O SF 511 GRAPH - 2 ;7/27/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVVS3   ;HIRMFO/YH-PATIENT VITAL SIGNS-I/O SF 511 GRAPH - 3 ;12/29/91
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVVS4   ;HIRMFO/RM,YH-PATIENT VITAL SIGNS-GRAPH ;3/14/97
           ;;4.0;Vitals/Measurements;;Apr 25, 1997
GMRVWT0   ;HIRMFO/YH-KYOCERA WEIGHT GRAPH - DATA ARRAY ;10/7/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVWT1   ;HIRMFO/YH-KYOCERA WEIGHT GRAPH - GRAPH DATA ;10/26/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVWT2   ;HIRMFO/YH-KYOCERA WEIGHT GRAPH - MACRO ;10/7/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVWT3   ;HIRMFO/YH-KYOCERA WEIGHT GRAPH - MACRO (CONT.) ;10/7/94
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVWT4   ;HIRMFO/YH-KYOCERA WEIGHT GRAPH - MACRO CALL ;7/27/95
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVXCH0  ;HIRMFO/RM,YH-CONVERT QUALIFIER/CATEGORY FILES ;8/1/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVXCH1  ;HIRMFO/YH-NEW QUALIFIER/CATEGORY ;8/21/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVXCH2  ;HIRMFO/YH,RM-GMRV VITAL QUALIFIER FILE CONVERSION ;8/1/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVXCH3  ;HIRMFO/YH,RM-CONVERT GMRV VITAL CATEGORY FILE ;8/1/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVXCHT  ;HIRMFO/RM-CONVERSION TABLE FOR QUALIFIERS ;7/22/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVXENV  ;HIRMFO/RM-ENVIRONMENT CHECK FOR VITALS ;7/18/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVXPRE  ;HIRMFO/RM-PREINITIALIZATION ROUTINE FOR VITALS ;7/19/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVXPST  ;HIRMFO/RM-POST-INIT ROUTINE FOR VITALS ;7/23/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
GMRVXVM0  ;HIRMFO/YH,RM-GMRV VITAL MEASUREMENT CONVERSION ;8/1/96
           ;;4.0;Vitals/Measurements;;Mar 31, 1997
```

# Chapter 3 File List and Related Information

### File Descriptions

GMRV VITAL MEASUREMENT 120.5
This file contains vital sign information and other measurement data for a patient.

GMRV VITAL TYPE 120.51
This file contains a list of vital sign types, and various parameters which mold the data entry.

GMRV VITAL QUALIFIER 120.52
This file contains a list of qualifiers for vitals/measurements.

GMRV VITAL CATEGORY 120.53
This file contains a list of qualities or characteristics that can be affixed to a vital measurement.

GMRV ORDERS 120.55
This file contains information specific to the General Medical Record Vitals/ Measurements orders.

GMRV VITALS PARAMETERS 120.57
This file contains the various site configurable parameters for the Vitals/ Measurements application.

### Package Default Definition

| FILE # | NAME | UP DATE DD | SEND SEC. CODE | DATA COMES W/FILE | SITE DATA | RSLV PTS | USER OVER RIDE |
|---|---|---|---|---|---|---|---|
| 120.5 | GMRV VITAL MEASUREMENT | YES | YES | NO | | | |
| 120.51 | GMRV VITAL TYPE | YES | YES | YES | OVER | YES | NO |
| 120.52 | GMRV VITAL QUALIFIER | YES | YES | YES | ADD | NO | YES |
| 120.53 | GMRV VITAL CATEGORY | YES | YES | YES | ADD | NO | YES |
| 120.55 | GMRV ORDERS | YES | YES | NO | | | |
| 120.57 | GMRV VITALS PARAMETERS | YES | YES | YES | ADD | YES | NO |

# Chapter 4 Exported Options

## Menu Options by Name

```
NAME: GMRV ADMISSION V/M                MENU TEXT: TPR B/P, Ht and Wt.
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows users to enter the following
 vital/measurements through a single option: temperature, pulse, respirations,
 blood pressure, height and weight.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=3 D EN2^GMRVED0
  TIMESTAMP: 55194,44424                UPPERCASE MENU TEXT: TPR B/P, HT AND
WT.

NAME: GMRV CAT/QUAL TABLE
  MENU TEXT: Display Vitals Category/Qualifier Table
  TYPE: run routine                     CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option displays a list of categories and qualifiers
 associated with individual vital types, e.g., blood pressure, temperature,
 pulse, respirations, weight, circumference/girth and pulse oximetry.  Data
 comes from the GMRV Vital Qualifier (#120.52) file and the GMRV Vital
Category (#120.53) file.
  ROUTINE: EN1^GMRVCAQU
  UPPERCASE MENU TEXT: DISPLAY VITALS CATEGORY/QUALIF

NAME: GMRV CHANGE V/M PARAMETERS        MENU TEXT: Change Date/Time Taken
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows the user to enter vitals/measurements (on
 the same patient) for a different Date/Time.
  EXIT ACTION: K:GMRVFLAG=2 GMRVFLAG,GMRVDBA K %,%H,%I,C,GMROUT,GMRVIDT
  ENTRY ACTION: S:'$D(GMRVFLAG) GMRVFLAG=2 S GMROUT=0 D DATE^GMRVED0 S:'GMROUT
GMRVDBA=GMROUT_"^"_GMRVIDT W:GMROUT !,$C(7),"Parameters unchanged!!" K
GMROUT,GMRVIDT
  UPPERCASE MENU TEXT: CHANGE DATE/TIME TAKEN

NAME: GMRV CIRCUMF/GIRTH                MENU TEXT: Circumference/Girth
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows users to enter circumference/girth
 measurement.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=19 D EN2^GMRVED0
  UPPERCASE MENU TEXT: CIRCUMFERENCE/GIRTH

NAME: GMRV CUMULATIVE V/M               MENU TEXT: Cumulative Vitals Report
  TYPE: run routine                     CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option prints a report containing vitals/measurement
 information for a patient over a given period of time.
  ROUTINE: EN4^GMRVSC0
  UPPERCASE MENU TEXT: CUMULATIVE VITALS REPORT

NAME: GMRV CVP                          MENU TEXT: CVP (Central Venous
Pressure)
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
```

```
 DESCRIPTION:   This option allows users to enter central venous pressure
 measurement.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=21 D EN2^GMRVED0
  UPPERCASE MENU TEXT: CVP (CENTRAL VENOUS PRESSURE)

NAME: GMRV DISPLAY V/M
  MENU TEXT: Latest Vitals Display for a Patient
  TYPE: run routine                     CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option displays on screen the latest vitals/measurements
 for a particular patient.
  ROUTINE: EN2^GMRVDS0
  UPPERCASE MENU TEXT: LATEST VITALS DISPLAY FOR A PA

NAME: GMRV ERROR EDIT
  MENU TEXT: Edit a Vital/Measurement Entered in Error
  TYPE: run routine                     CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option allows users to correct errors in
 vitals/measurements.  A new record is created, and the old record is marked
as entered in error.
  ROUTINE: EN1^GMRVEE0
  UPPERCASE MENU TEXT: EDIT A VITAL/MEASUREMENT ENTER

NAME: GMRV ERROR REPORT
  MENU TEXT: Print Vitals Entered in Error for a Patient
  TYPE: run routine                     CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option prints a report of all vitals/measurements entered
 in error for a particular patient for a given time span.
  ROUTINE: EN1^GMRVER0
  UPPERCASE MENU TEXT: PRINT VITALS ENTERED IN ERROR

NAME: GMRV EXT B/P
  MENU TEXT: Detailed B/P and Associated Pulse
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows users to enter detailed blood pressure and
 associated pulse information. In addition to the numeric values of the blood
 pressure and pulse readings, the site/location where the blood pressure and
 pulse were taken (e.g., left arm vs right arm), the position of the patient
 (e.g., sitting, standing) and other qualifiers are documented.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=6 D EN2^GMRVED0
  TIMESTAMP: 55273,53545
  UPPERCASE MENU TEXT: DETAILED B/P AND ASSOCIATED PU

NAME: GMRV O2SATURATION                 MENU TEXT: Pulse Oximetry
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows users to enter pulse oximetry.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=20 D EN2^GMRVED0
  UPPERCASE MENU TEXT: PULSE OXIMETRY

NAME: GMRV PRINT MENU
  MENU TEXT: Vitals/Measurements Results Reporting
  TYPE: menu                            CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This is the main menu for all vitals/measurements reports.
ITEM: GMRV ERROR REPORT                 SYNONYM: 5
ITEM: GMRV DISPLAY V/M                  SYNONYM: 2
```

```
ITEM: GMRV SF511                          SYNONYM: 1
ITEM: GMRV V/M BY LOCATION                SYNONYM: 3
ITEM: GMRV CUMULATIVE V/M                 SYNONYM: 4
  TIMESTAMP: 56656,39462
  UPPERCASE MENU TEXT: VITALS/MEASUREMENTS RESULTS RE

NAME: GMRV PULSE                          MENU TEXT: Pulse
  TYPE: action                            CREATOR: POSTMASTER
  E ACTION PRESENT: YES                   X ACTION PRESENT: YES
 DESCRIPTION:   This option allows users to enter a patient's pulse rate.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=7 D EN2^GMRVED0
  UPPERCASE MENU TEXT: PULSE

NAME: GMRV SCHED FILE DISP
  MENU TEXT: Display Administration Schedule File
  TYPE: action                            CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS        E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option displays entries in the Administration Schedule
 file (#51.1).
  EXIT ACTION: K PSJPP,%Y
  ENTRY ACTION: Q:$S('$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  S PSJPP="GMRV" D
ENSVI^PSJEEU
  UPPERCASE MENU TEXT: DISPLAY ADMINISTRATION SCHEDUL

NAME: GMRV SCHED FILE EDIT
  MENU TEXT: Edit Administration Schedules File
  TYPE: action                            CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS        E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option permits the entering and editing of entries into
 the Administration Schedule (#51.1) file.
  EXIT ACTION: K PSJPP,PSJSHLS,%X,%Y,D1,Z
  ENTRY ACTION: Q:$S('$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  S
PSJPP="GMRV",PSJSHLS="I $P(^(0),U,3)'=""Z""" D ENSE^PSJEEU
  UPPERCASE MENU TEXT: EDIT ADMINISTRATION SCHEDULES

NAME: GMRV SF511                          MENU TEXT: V/M Graphic Reports
  TYPE: run routine                       CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option prints specific Vitals/Measurements graphic
reports including the Vital Flow Sheet (SF511), the B/P Plotting Chart (SF512-
A), the Weight Chart (VAF10-2614f), and the Pulse Oximetry/Respiration Graph
(SF 512).
  ROUTINE: EN1^GMRVSR0                    UPPERCASE MENU TEXT: V/M GRAPHIC
REPORTS

NAME: GMRV SITE FILE EDIT
  MENU TEXT: Edit Vitals Site Parameter File
  TYPE: edit                              CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS        X ACTION PRESENT: YES
 DESCRIPTION:   This option allows the ADP coordinator, and selected staff, to
 edit the vitals sign site parameters data.  This includes the abnormal vitals
 ranges.
  EXIT ACTION: K %X,%Y,DI,DQ              DIC {DIC}: GMRD(120.57,
  DIC(0): AEMQ                            DIE: GMRD(120.57,
  DR {DIE}: [GMRV SITE FILE EDIT]
  UPPERCASE MENU TEXT: EDIT VITALS SITE PARAMETER FIL

NAME: GMRV SITE FILE MENU
  MENU TEXT: Vitals/Measurements Site Files Menu
  TYPE: menu                              CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   The ADP Coordinator can use the options contained in this menu
```

```
 to enter: 1. Vitals sign site parameters in the GMRV Vital Type file
 (#120.51).  2. Vitals/measurements qualifiers in the GMRV Vital Qualifier
file (#120.52).  3. Temperature and pulse default qualifers in the GMRV
Category file (#120.53).  4. Sets of standard times when vitals are to be
taken (ordered) in the Administration Schedule file (#51.1).  5. Quick order
protocols in the Protocol file (#101).

 This menu also prints: 1. Administration schedules associated with
 vitals/measurements.  2. A table displaying all vital types and their
 associated categories and
    qualifiers.
ITEM: GMRV SITE FILE EDIT               SYNONYM: 1
  DISPLAY ORDER: 1
ITEM: GMRV SCHED FILE EDIT              SYNONYM: 5
  DISPLAY ORDER: 5
ITEM: GMRV SCHED FILE DISP              SYNONYM: 6
  DISPLAY ORDER: 6
ITEM: GMRVORQUICK                       SYNONYM: 7
  DISPLAY ORDER: 7
ITEM: GMRV VMQUALTY                     SYNONYM: 2
  DISPLAY ORDER: 2
ITEM: GMRV VMSITE                       SYNONYM: 3
  DISPLAY ORDER: 3
ITEM: GMRV CAT/QUAL TABLE               SYNONYM: 4
  DISPLAY ORDER: 4
  TIMESTAMP: 56994,43225
  UPPERCASE MENU TEXT: VITALS/MEASUREMENTS SITE FILES

NAME: GMRV TPR B/P ROUTINE              MENU TEXT: TPR B/P
  TYPE: action                          CREATOR: POSTMASTER
  E ACTION PRESENT: YES                 X ACTION PRESENT: YES
 DESCRIPTION:   This option allows data entry of temperature, pulse,
 respiration and blood pressure.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=2 D EN2^GMRVED0
  TIMESTAMP: 55359,54655                UPPERCASE MENU TEXT: TPR B/P

NAME: GMRV TPR EXT B/P                  MENU TEXT: Temp, Detailed PR and B/P
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows data to be entered for temperature, pulse,
 respiration and detailed blood pressure.  Detailed blood pressure captures
the numeric value of both the systolic and diastolic pressures and also
associates
 (a) the site where the pressure was taken (e.g., left arm vs right arm), and
 (b) the position of the patient when the reading was taken (e.g., sitting vs
 standing).
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=5 D EN2^GMRVED0
  UPPERCASE MENU TEXT: TEMP, DETAILED PR AND B/P

NAME: GMRV TPR ROUTINE                  MENU TEXT: TPR
  TYPE: action                          CREATOR: POSTMASTER
  E ACTION PRESENT: YES                 X ACTION PRESENT: YES
 DESCRIPTION:   This option allows users to enter temperature, pulse, and
 respirations.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=1 D EN2^GMRVED0
  TIMESTAMP: 55335,39135                UPPERCASE MENU TEXT: TPR

NAME: GMRV TPRBW                        MENU TEXT: TPR, B/P and Wt.
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
```

```
 DESCRIPTION:   This option allows data to be entered for temperature, pulse,
 respiration , blood pressure and weight.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=4 D EN2^GMRVED0
  UPPERCASE MENU TEXT: TPR, B/P AND WT.

NAME: GMRV V/M BY LOCATION              MENU TEXT: Latest Vitals by Location
  TYPE: run routine                     CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option prints the latest vitals/measurements for all
 patients on a given location.
  ROUTINE: EN1^GMRVDS1
  UPPERCASE MENU TEXT: LATEST VITALS BY LOCATION

NAME: GMRV V/M ENTRY MENU               MENU TEXT: Vitals/Measurement Data
Entry

  TYPE: menu                            CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This is the main enter/edit menu through which clinicians may
 document patient vital signs and selected measurements.
ITEM: GMRV TPR ROUTINE                  SYNONYM: 1
  DISPLAY ORDER: 1
ITEM: GMRV TPR B/P ROUTINE              SYNONYM: 2
  DISPLAY ORDER: 2
ITEM: GMRV PULSE                        SYNONYM: 7
  DISPLAY ORDER: 7
ITEM: GMRV ADMISSION V/M                SYNONYM: 3
  DISPLAY ORDER: 3
ITEM: GMRV WEIGHT                       SYNONYM: 8
  DISPLAY ORDER: 8
ITEM: GMRV TPR EXT B/P                  SYNONYM: 5
  DISPLAY ORDER: 5
ITEM: GMRV CHANGE V/M PARAMETERS        SYNONYM: 13
  DISPLAY ORDER: 13
ITEM: GMRV EXT B/P                      SYNONYM: 6
  DISPLAY ORDER: 6
ITEM: GMRV VMCONFIG                     SYNONYM: 12
  DISPLAY ORDER: 12
ITEM: GMRV CIRCUMF/GIRTH                SYNONYM: 9
  DISPLAY ORDER: 9
ITEM: GMRV O2SATURATION                 SYNONYM: 10
  DISPLAY ORDER: 10
ITEM: GMRV CVP                          SYNONYM: 11
  DISPLAY ORDER: 11
ITEM: GMRV TPRBW                        SYNONYM: 4
  DISPLAY ORDER: 4
  EXIT ACTION: K GMRVDBA,GMRVFLAG
  ENTRY ACTION: S GMRVFLAG=1 D ENTACT^GMRVED4
  TIMESTAMP: 57037,47248
  UPPERCASE MENU TEXT: VITALS/MEASUREMENT DATA ENTRY

NAME: GMRV VMCONFIG                     MENU TEXT: User Configurable
Combination
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS      E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows users to select types of
Vitals/Measurements
 from the following list to enter the data.
 1  T 2  P 3  R 4  B/P 5  Wt 6  Ht 7  Circumference/Girth 8  Pulse Oximetry 9
 CVP (Central Venous Pressure)
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) D EN1^GMRVALL0
```

```
  UPPERCASE MENU TEXT: USER CONFIGURABLE COMBINATION

NAME: GMRV VMQUALTY
  MENU TEXT: Change Default Qualifiers for Temp./Pulse
  TYPE: run routine                       CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option is for the ADP coordinator to change default
 qualifiers for temperature/pulse in GMRV Vital Category file (#120.53).
  ROUTINE: DEFAULT^GMRVSITE
  UPPERCASE MENU TEXT: CHANGE DEFAULT QUALIFIERS FOR

NAME: GMRV VMSITE                       MENU TEXT: Enter/Edit Vitals
Qualifiers
  TYPE: run routine                       CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option is used by the application coordinator to create
 and edit hospital-wide qualifiers associated with vital signs and other
 patient measurements captured in the Vitals/Measurements application.  Data
is stored in the GMRV Vital Qualifier (#120.52) file.
  ROUTINE: CHAR^GMRVSITE
  UPPERCASE MENU TEXT: ENTER/EDIT VITALS QUALIFIERS

NAME: GMRV WEIGHT                       MENU TEXT: Weight
  TYPE: action                          CREATOR: POSTMASTER
  E ACTION PRESENT: YES                 X ACTION PRESENT: YES
 DESCRIPTION:   This option allows users to document a patient's weight.
  EXIT ACTION: D EXITACT^GMRVED4
  ENTRY ACTION: D ENTACT^GMRVED4 I $D(GMRVDBA) S GMRENTY=8 D EN2^GMRVED0
  UPPERCASE MENU TEXT: WEIGHT

NAME: GMRVMGR                           MENU TEXT: Vitals/Measurement
  TYPE: menu                            CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This is the main menu for the vitals/measurements application.
 It contains options for:  (1) entering patient vital/measurement data, (2)
 printing various vital/measurement reports, (3) editing site configurable
 files, and (4) displaying Administration Schedule file (#51.1), and (5)
 creating quick order protocols.
ITEM: GMRV V/M ENTRY MENU               SYNONYM: 1
  DISPLAY ORDER: 1
ITEM: GMRV ERROR EDIT                   SYNONYM: 3
  DISPLAY ORDER: 3
ITEM: GMRV SITE FILE MENU               SYNONYM: 4
  DISPLAY ORDER: 4
ITEM: GMRV PRINT MENU                   SYNONYM: 2
  DISPLAY ORDER: 2
  TIMESTAMP: 56980,34311                TIMESTAMP OF PRIMARY MENU: 54271,27448
  UPPERCASE MENU TEXT: VITALS/MEASUREMENT

NAME: GMRVORQUICK
  MENU TEXT: Create Vital Measurement Quick Order Protocol
  TYPE: run routine                       CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O
 DESCRIPTION:   This option allows users to create quick order protocols in
 which the prompts are displayed with default values or not displayed and the
 default values are automatically entered.
  ROUTINE: EN1^GMRVOREQ                 TIMESTAMP: 55441,53302
  UPPERCASE MENU TEXT: CREATE VITAL MEASUREMENT QUICK
```

## Protocols by Name

```
NAME: GMRVORADMIT V/M                    ITEM TEXT: TPR-B/P-Ht.-Wt.
  TYPE: limited protocol                 CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
ITEM: GMRVORTEMP
ITEM: GMRVORPULSE
ITEM: GMRVORRESP
ITEM: GMRVORB/P
ITEM: GMRVORHT
ITEM: GMRVORWT
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 56988,31153


NAME: GMRVORB/P                          ITEM TEXT: B/P
  TYPE: protocol                         CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 56988,31153


NAME: GMRVORCG                           ITEM TEXT: CIRCUMFERENCE/GIRTH
  TYPE: protocol                         CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 57042,47669


NAME: GMRVORCVP                          ITEM TEXT: CENTRAL VENOUS PRESSURE
  TYPE: protocol                         CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 57042,47626


NAME: GMRVORHT                           ITEM TEXT: HEIGHT
  TYPE: protocol                         CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 56988,31153


NAME: GMRVORMENU                         ITEM TEXT: Vital/Measurements
  TYPE: protocol menu                    CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS       COLUMN WIDTH: 40
ITEM: GMRVORTPR                          MNEMONIC: 1
  SEQUENCE: 1
ITEM: GMRVORTPR B/P                      MNEMONIC: 2
  SEQUENCE: 2
ITEM: GMRVORADMIT V/M                    MNEMONIC: 5
  SEQUENCE: 5
ITEM: GMRVORPULSE                        MNEMONIC: 3
  SEQUENCE: 3
ITEM: GMRVORB/P                          MNEMONIC: 4
  SEQUENCE: 4
ITEM: GMRVORWT                           MNEMONIC: 6
  SEQUENCE: 6
ITEM: GMRVORTEMP                         MNEMONIC: 7
  SEQUENCE: 7
```

```
ITEM: GMRVORRESP                        MNEMONIC: 8
  SEQUENCE: 8
ITEM: GMRVORHT                          MNEMONIC: 9
  SEQUENCE: 9
  TIMESTAMP: 56988,31153


NAME: GMRVORP CUM REPORT                ITEM TEXT: Cumulative Vitals Report
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option will create the protocol for the Cumulative Vitals
report.
  EXIT ACTION: K DFN
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  S
DFN=+ORVP D EN2^GMRVSC0
  TIMESTAMP: 56988,31153


NAME: GMRVORP DISP VITALS               ITEM TEXT: Latest Vitals Display
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option will create the protocol for the latest vitals
display.
  EXIT ACTION: K DFN
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  S
DFN=+ORVP D EN3^GMRVDS0
  TIMESTAMP: 56988,31153


NAME: GMRVORPO                          ITEM TEXT: PULSE OXIMETRY
  TYPE: protocol                        CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 57042,47641


NAME: GMRVOR DGPM                       ITEM TEXT: GMRV Transfer Events
  TYPE: extended action                 CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This option will become the GMRVOR DGPM protocol, and should
be linked to the DGOERR TRANSFER EVENTS protocol.  This protocol will perform
events that are appropriate for the GMRV pacakge.
  FILE LINK: 4499;DIC(19,
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN4^GMRVORDG
  TIMESTAMP: 56988,31153


NAME: GMRVORP SF511                     ITEM TEXT: SF511 Vitals Report
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
 DESCRIPTION:   This is the option that will create the protocol for the SF511
Patient Profile in OERR.
  EXIT ACTION: K DFN
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  S
DFN=+ORVP D EN4^GMRVSR0
  TIMESTAMP: 56988,31153


NAME: GMRVORPULSE                       ITEM TEXT: PULSE
  TYPE: protocol                        CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
```

```
  TIMESTAMP: 56988,31153


NAME: GMRVORRESP                        ITEM TEXT: RESPIRATION
  TYPE: protocol                        CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 56988,31153


NAME: GMRVORTEMP                        ITEM TEXT: TEMPERATURE
  TYPE: protocol                        CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 56988,31153


NAME: GMRVORTPR                         ITEM TEXT: TPR
  TYPE: limited protocol                CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
ITEM: GMRVORTEMP
ITEM: GMRVORPULSE
ITEM: GMRVORRESP
  ENTRY ACTION: D EN1^GMRVORE0          TIMESTAMP: 56988,31153


NAME: GMRVORTPR B/P                     ITEM TEXT: TPR B/P
  TYPE: limited protocol                CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
ITEM: GMRVORTEMP
ITEM: GMRVORPULSE
ITEM: GMRVORRESP
ITEM: GMRVORB/P
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 56988,31153


NAME: GMRVORWT                          ITEM TEXT: WEIGHT
  TYPE: protocol                        CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS
  ENTRY ACTION: Q:$S('$D(^ORD(100.99)):1,'$D(^PS(59.7,1,20)):1,1:^(20)<2.8)  D
EN1^GMRVORE0
  TIMESTAMP: 56988,31153
```

# Chapter 5 Cross-References

Included in this section is the information about the cross-references of the application.

```
GMRV VITAL MEASUREMENT (120.5) FILE

------------------------------------------------------------------------------

DATE/TIME VITALS TAKEN
     NAME: B
     DESCRIPTION: This cross-reference is automatically created on .01 field.

     NAME: AA01
     DESCRIPTION: This MUMPS cross-reference sorts the vital/measurement records by
the VITAL TYPE (.03) and the inverted DATE/TIME VITALS TAKEN (.01) for a patient.


PATIENT
     NAME: C
     DESCRIPTION: This regular cross-reference is used to sort the vital/measurement
records by patient.

     NAME: AA02
     DESCRIPTION: This MUMPS cross-reference is created to sort the
vital/measurement records by the VITAL TYPE (.03) and the inverted DATE/TIME VITALS
TAKEN
(.01) for a patient.


VITAL TYPE
     NAME: T
     DESCRIPTION: This regular cross-reference is created to sort the file by the
type of measurement.

     NAME: AA03
     DESCRIPTION: This MUMPS cross-reference is created to index a patient's vital/
measurement data by the VITAL TYPE (.03) and the inverted DATE/TIME
VITALS TAKEN (.01).



GMRV VITAL TYPE (120.51) FILE

------------------------------------------------------------------------------

NAME
     NAME: B
     DESCRIPTION: This cross-reference is automatically created on .01 field.


ABBREVIATION
     NAME: C
     DESCRIPTION: This regular cross-reference is created to sort the file by the
ABBREVIATION and the associated NAME (.01).


PCE ABBREVIATION
     NAME: APCE
     DESCRIPTION: This regular cross-reference is created to sort the file by the
PCE Abbreviation (Patient Care Encounter).



GMRV VITAL QUALIFIER (120.52) FILE

------------------------------------------------------------------------------
```

QUALIFIER
NAME: B
DESCRIPTION: This cross-reference is automatically created on .01 field.

NAME: ACHR
DESCRIPTION: This MUMPS cross-reference sets the "AA" index on the GMRV Vital Qualifier (120.52) file.

VITAL TYPE (120.521) SUB-FILE

---

VITAL TYPE
NAME: B
DESCRIPTION: This cross-reference is automatically created on .01 field.

NAME: C
DESCRIPTION: This regular cross-reference is created to sort the file by VITAL TYPE and the associated vital site NAME (.01).

NAME: ATYP
DESCRIPTION: This MUMPS cross-reference sets the "AA" index on the GMRV Vital Qualifier (120.52) file.

CATEGORY
NAME: ACAT
DESCRIPTION: This MUMPS cross-reference sets the "AA" index on the GMRV Vital Qualifier (120.52) file.

NAME: D
DESCRIPTION: This is a regular cross-reference of the Category (.02) field of the Vital Type (120.521) subfile on the entire GMRV Vital Qualifier (120.52) file.

OLD RECORD NUMBER
NAME: AOLD
DESCRIPTION: This cross-reference is a regular index on the Old Record Number field, which will be used in the conversion to find the new Characteristic IEN for the old Site and Quality data.

GMRV VITAL CATEGORY (120.53) FILE

---

CATEGORY
NAME: B
DESCRIPTION: This cross-reference is automatically created on NAME field.

NAME: ACAT
DESCRIPTION: This MUMPS cross-reference sets up the "AA" index of the GMRV Category (120.53) file.

VITAL TYPE (120.531) SUB-FILE

---

VITAL TYPE
NAME: B
DESCRIPTION: This cross-reference is automatically created on .01 field.

NAME: C
DESCRIPTION: This regular cross-reference is created to sort the file by the VITAL TYPE and the associated vital qualifiers (NAME .01 field).

```
     NAME: ATYP
     DESCRIPTION: This MUMPS cross-reference sets up the "AA", "AEDIT" and "APRINT"
indicies on the GMRV Category (120.53) file.


PRINT ORDER
     NAME: APRT
     DESCRIPTION: This MUMPS cross-reference sets up the "APRINT" index on the GMRV
Catgory (120.53) file.


EDIT ORDER
     NAME: AEDT
     DESCRIPTION: This MUMPS cross-reference sets up the "AEDIT" index on the GMRV
Catgory (120.53) file.



GMRV ORDERS (120.55) FILE

------------------------------------------------------------------------------

NAME
     NAME: B
     DESCRIPTION: This cross-reference is automatically created on .01 field.



GMRV VITALS PARAMETERS (120.57) FILE

------------------------------------------------------------------------------

NAME
     NAME: B
     DESCRIPTION: This cross-reference is automatically created on .01 field.
```

# Chapter 6 Archiving and Purging

This chapter describes how IRMS personnel may use FileMan's archiving capability to archive and purge Vitals/Measurements data from the GMRV Vital Measurement (#120.5) file. The data resides in the GMR global.

The FileMan Archive utility builds an index in the archive file of the records saved based on the .01 field and its identifiers (i.e., .02 and .03).

Have your FileMan (V. 21.0) User Manual handy and opened to the Archiving Options chapter (page 291).

1) Select the entries you want to archive. Perhaps experiment by saving all the entries for a given year (e.g., 1991) or try this on your test system first.

```
> D P^DI

VA FileMan 21.0

Select OPTION: ?
 Answer with OPTION NUMBER, or NAME
Choose from:
   1               ENTER OR EDIT FILE ENTRIES
   2               PRINT FILE ENTRIES
   3               SEARCH FILE ENTRIES
   4               MODIFY FILE ATTRIBUTES
   5               INQUIRE TO FILE ENTRIES
   6               UTILITY FUNCTIONS
   7               OTHER OPTIONS
   8               DATA DICTIONARY UTILITIES
   9               TRANSFER ENTRIES

Select OPTION: 7  OTHER OPTIONS
Select OTHER OPTION: ?
 Answer with OTHER OPTION NUMBER, or NAME
Choose from:
   1               FILEGRAMS
   2               ARCHIVING
   3               AUDITING
   4               SCREENMAN
   5               STATISTICS
   6               EXTRACT DATA TO FILEMAN FILE
   7               DATA EXPORT TO FOREIGN FORMAT
   8               BROWSER

Select OTHER OPTION: 2  ARCHIVING

Select ARCHIVE OPTION: ??
```

```
Choose from:
   1               SELECT ENTRIES TO ARCHIVE
   2               ADD/DELETE SELECTED ENTRIES
   3               PRINT SELECTED ENTRIES
   4               CREATE FILEGRAM ARCHIVING TEMPLATE
   5               WRITE ENTRIES TO TEMPORARY STORAGE
   6               MOVE ARCHIVED DATA TO PERMANENT STORAGE
   7               PURGE STORED ENTRIES
   8               CANCEL ARCHIVAL SELECTION
   9               FIND ARCHIVED ENTRIES

Select ARCHIVE OPTION: 1  SELECT ENTRIES TO ARCHIVE
ARCHIVE FROM WHAT FILE: GMRV VITAL MEASUREMENT
  -A- SEARCH FOR GMRV VITAL MEASUREMENT FIELD: .01  DATE/TIME VITALS TAKEN
  -A- CONDITION: LESS THAN
  -A- LESS THAN DATE: 1/1/86  (JAN 01, 1986)  <----Enter the cutoff date to stop
                                                   archiving.
  -B- SEARCH FOR GMRV VITAL MEASUREMENT FIELD: <RET>

IF: A// <ret>    DATE/TIME VITALS TAKEN LESS THAN JAN 1,1986 (1/1/86)

STORE RESULTS OF SEARCH IN TEMPLATE: GMRV VITAL MEASUREMENT
  Are you adding 'GMRV VITAL MEASUREMENT' as     <----Enter a name for the search
    a new SORT TEMPLATE? Y  (Yes)                                    template
just created.
DESCRIPTION:
  No existing text
  Edit? NO// y  YES     <----Optional.

==[ WRAP ]==[ INSERT ]============< DESCRIPTION >===========[ <PF1>H=Help
An archiving search template for v/m for entries before 1/1/86.

<======T=======T=======T=======T=======T=======T=======T=======T=======T=>

SORT BY: DATE/TIME VITALS TAKEN// <RET>
START WITH DATE/TIME VITALS TAKEN: FIRST//  <RET>
FIRST PRINT FIELD: [captionED            <----Enter CAPTIONED to get field
                                              names and values.

Include COMPUTED fields:  (N/Y/R/B): NO// B  BOTH Computed Fields and
Record Number (IEN)

  ************************
Heading (S/C): GMRV VITAL MEASUREMENT ARCHIVE SEARCH
  Replace <RET>
DEVICE: Enter appropriate device
```

2) Create a FileGram template to hold the data while moving it from the database to the storage medium.

```
Select ARCHIVE OPTION: 4  CREATE FILEGRAM ARCHIVING TEMPLATE

OUTPUT FROM WHAT FILE: GMRV VITAL MEASUREMENT// <RET>
```

```
FIRST SEND GMRV VITAL MEASUREMENT FIELD: ALL  Do you mean ALL the fields
in the file? No// Y (Yes)
 THEN SEND GMRV VITAL MEASUREMENT FIELD: <RET>
STORE ARCHIVE LOGIC IN TEMPLATE: GMRV V/M ARCHIVE <----Enter a name for the
                                                      FileGram template
                                                      created.
  Are you adding 'GMRV V/M ARCHIVE' as a new PRINT TEMPLATE? Y  (Yes)
```

3) Move the data into temporary storage (i.e., FileGram).

```
Select ARCHIVE OPTION: 5  WRITE ENTRIES TO TEMPORARY STORAGE
Select ARCHIVAL ACTIVITY: ?
 Answer with ARCHIVAL ACTIVITY ARCHIVE NUMBER, or FILE:
   1     GMRV VITAL MEASUREMENT          10-16-96     SELECTED
SELECTOR:TRAXLER,FRANK     ARCHIVING

Select ARCHIVAL ACTIVITY: 1         GMRV VITAL MEASUREMENT  10-16-96
SELECTED     SELECTOR:TRAXLER,FRANK     ARCHIVING

You MUST enter a FILEGRAM template name.  This FILEGRAM template will be
used to actually build the archive message.
PRINT TEMPLATE: GMRV V/M ARCHIVE  GMRV V/M ARCHIVE    **FILEGRAM**
                                (Oct 16, 1996)       User #1168 File #120.5

DEVICE: Enter appropriate device
```

4) Move the data to the permanent storage medium (e.g., diskette, tape, CD-Rom) to finish archiving the data.

```
Select ARCHIVE OPTION: 6   MOVE ARCHIVED DATA TO PERMANENT STORAGE
Select ARCHIVAL ACTIVITY: ?
 Answer with ARCHIVAL ACTIVITY ARCHIVE NUMBER, or FILE:
   1     GMRV VITAL MEASUREMENT          10-16-96     ARCHIVED (TEMPORARY)
   SELECTOR:TRAXLER,FRANK     ARCHIVING

Select ARCHIVAL ACTIVITY: 1         GMRV VITAL MEASUREMENT  10-16-96
ARCHIVED (TEMPORARY)     SELECTOR:TRAXLER,FRANK     ARCHIVING

NOTE: This option will 1) print an archive activity report to specified
PRINTER DEVICE and 2) will move archive data to permanent storage to
specified ARCHIVE STORAGE DEVICE.

Select some type of SEQUENTIAL media, such as SDP, TAPE, or DISK FILE
(HFS), for archival storage.

PRINTER DEVICE: P-SLAVE-PC            <----Select device to print archive activity
                                           report.

ARCHIVE STORAGE DEVICE: RMS FILE      <----Select permanent storage device, see
                                           page 298 of a FM User Manual for
                                           additional information.
```

```
HOST FILE NAME: DAD.DAT//FPT.DAT      <----Enter the name of the file which will
                                           hold the archived records.
                                               INPUT/OUTPUT OPERATION: ?
Enter one of the following host file input/ouput operation:
                R = READONLY
                N = NEWVERSION
               RW = READ/WRITE
                                               INPUT/OUTPUT OPERATION: RW

ARCHIVE DEVICE LABEL: VA4$:[TRAX]FPT.DAT;// <RET> VA4$:[TRAX]FPT.DAT;

Select ARCHIVE OPTION: <RET>
```

5) Run the PURGE STORED ENTRIES option to purge the entries from File 120.5.

# Chapter 7 Callable Routines

There are no callable routines.

# Chapter 8 External Relations

1. The following VISTA applications must reside in the system before Vitals/ Measurements, Version 4.0 can be installed:

   a. VA FileMan V. 21 or greater,
   b. Kernel V. 8.0 or greater,
   c. Kernel Toolkit V. 7.3 or greater,
   d. PIMS (MAS) V. 5.3 or greater,
   e. Intake and Output V. 4.0,
   f. Health Summary V. 2.7 or greater.
   g. If you are using Order Entry/Results Reporting (OE/RR), V. 2.5 or greater, the Administration Schedule (#51.1) file of Inpatient Medications V. 4.5 or greater must be installed.

2. Existing integration agreements between the Vitals/Measurements software and other VISTA applications are summarized below.

DBIA's where the Vitals/Measurements package is the subscriber:

```
       861     NAME: OR
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active             EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: OR
   COMPONENT:  EN
   VARIABLES:  X           Input
                                Variable pointer of the protocol.
                  OE/RR Processor. This is the main entry point to run the
                  OE/RR program.  It is called with X set as a variable
                  pointer to the initial protocol.

                            ********************

       862     NAME: ORUHDR
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active             EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORUHDR
   COMPONENT:  EXT
   VARIABLES:  ORIFN       Both
                                Internal number in file 100 of the order
                                to display.
               ORAGE       Output
                                Patient age.
               ORIO        Output
               ORANSI      Output
               ORDOB       Output
                                Patient Date of Birth
               ORFT        Output
               ORHI        Output
               ORNP        Output
                                Pointer to file 200 for Current
                                Agent/Provider
```

```
               ORL         Output
                                  Variable pointer to the variable pointer.
               ORPD        Output
               ORPNM       Output
                                  Patient name
               ORPV        Output
                                  Pointer to Provider file for the person
                                  requesting the order.
               ORSEQ       Output
               ORSEX       Output
                                  Patient sex.
               ORSSN       Output
                                  Patient SSN
               ORTIT       Output
                                  Title
               ORTS        Output
                                  Pointer to Treating Specialty associated
                                  with the order.
               ORVP        Output
                                  Variable pointer toe object of an order.
               ORWARD      Output
                                  Inpatient Ward location
                  Displays a standard header for detailed order displays.  If
                  calling this from within OE/RR, it is not necessary to
                  killthe returned variables.  OE/RR will kill them.
   COMPONENT:  PGBRK
   VARIABLES:  DIROUT      Output
                                  User entered a '^^'
               OREND       Output
                                  User entered a '^'
                  Displays 'Press return to continue or "^" to escape' at
                  page breaks.

                            ********************

       863     NAME: ORUPREF2
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORUPREF2
   COMPONENT:  EN3
   VARIABLES:  ORPKG       Input
                                  Package pointer.
               ORDEF       Input
                                  Default protocol for setting up
                                  protocols.
               ORFL        Input
                                  File link - variable pointer for
                                  procedure file.
               ORDANM      Input
                                  Optional name of the protocol.
               ORDA        Input
                                  Internal number of an existing protocol
                                  to be updated.
               OREA        Input
                                  Action used in lieu of default defined in
                                  OROEF.
               ORTXT       Input
                                  Name of protocol; if not defined, the .01
                                  filed of the procedure referenced is
                                  used.
                  Utility for 'on-the-fly' protocol creation.  See OE/RR
                  Developers guide.

                            ********************

       864     NAME: ORUTL
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
```

```
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine

    ROUTINE: ORUTL
  COMPONENT:  READ
  VARIABLES:

                          ********************

      865     NAME: ORVOM
 CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine

    ROUTINE: ORVOM

                          ********************

      866     NAME: ORX
 CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine

    ROUTINE: ORX
  COMPONENT:  FILE
  VARIABLES:  OREPDUZ     Input
                          DUZ of the person entering the order.
              ORL         Input
                          Variable pointer to the variable pointer.
              ORPCL       Input
                          Variable pointer to the protocol that
                          created the order.
              ORNP        Input
                          Pointer to file 200 for Current
                          Agent/Provider
              ORVP        Input
                          Variable pointer to the object of an
                          order.
              ORCOST      Input
                          Cost of the order
              OREVENT     Input
                          Two piece variable delimited by a
                          semicolon.  The first piece is the time
                          at which an event should occur.  The
                          second piece is a character that has
                          meaning to a package.
              ORIT        Input
                          Variable pointer to the item ordered.
              ORLOG       Input
                          Time the order is entered.
              ORPK        Input
                          Package reference defined by the package
                          when an order is created.
              ORPURG      Input
                          Grace days before an order is purged.
              ORSTOP      Input
                          Order Stop Date
              ORSTRT      Input
                          Order start date
              ORSTS       Input
                          Order status
              ORTO        Input
                          Pointer to Display Group file. Identifies
                          the service receiving the order.
              ORTS        Input
```

```
                                    Pointer to Treating Specialty associated
                                    with the order.
              ORTX(i)     Input
                                    Order Text.
              ORIFN       Output
                                    Internal entry number of order in file
                                    100
   COMPONENT: RETURN
   VARIABLES: ORIFN       Input
                                    Internal entry number of order.
              ORETURN(OR  Input
                                    Cost of the order.
              ORETURN(OR  Input
                                    Two piece variable delimited by a
                                    semicolon.  The first piece is the time
                                    at which an event should occur.  The
                                    second piece is a character that has
                                    meaning to a package.
              ORETURN(OR  Input
                                    Variable pointer to the item ordered.
              ORETURN(OR  Input
                                    Free text, package defined reference.
              ORETURN(OR  Input
                                    Grace period before purging order.
              ORETURN(OR  Input
                                    Pointer to file 200 for Current
                                    Agent/Provider
              ORETURN(OR  Input
                                    Stop Date
              ORETURN(OR  Input
                                    Start Date
              ORETURN(OR  Input
                                    Pointer to Order Status
              ORETURN(OR  Input
                                    Order Text
   COMPONENT: ST
   VARIABLES: ORIFN       Input
                                    Internal entry number of the order.
              ORSTS       Input
                                    Order Status

                          ********************

      867     NAME: ORX2
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

    ROUTINE: ORX2
   COMPONENT: LK
   VARIABLES: X           Input
                                    Variable pointer of patient.
              Y           Output
                                    Y=1 if lock is successful, 0 if failed.
                 Used when updating orders for a patient to check that
                 someone else is not also updating orders at the same time
                 for the same patient.  This will attempt to set a software
                 lock on the patient.  Applications using this entry point
                 must also call the entry point ULK^ORX2 to unlock the
                 patient when the updating process is finished.
   COMPONENT: ULK
   VARIABLES: X           Input
                                    Variable pointer to the patient.
                 Used in conjunction with the entry point LK^ORX2 to unlock
                 a patient during the process of adding orders.  Do not call
                 this entry point unless you have already successfully
                 locked the patient.

                          ********************

      868     NAME: ORX3
```

```
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active             EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORX3
   COMPONENT:  NOTE
   VARIABLES:  ORNOTE(i)   Input
                                i=internal # of the notification
               ORVP        Input
                                Variable pointer to the patient.
               ORIFN       Input
                                Order number that you want this
                                notification to linked to.
                  This is an entry point that creates a notification for a
                  package.

                            ********************

       869     NAME: ORX5
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active             EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORX5
   COMPONENT:  DC
   VARIABLES:  ORIFN       Input
                                Pointer to the order.
                  This entry is called when a package needs to create a DC
                  order.
   COMPONENT:  HOLD
   VARIABLES:  ORIFN       Input
                                Pointer to the order.
                  This entry is called when a package needs to place a HOLD
                  on an ordered item.

                            ********************

       870     NAME: ORX7
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active             EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORX7
   COMPONENT:  DC
   VARIABLES:  ORIFN       Input
                                Pointer to the order.
               ORNATR      Input
                                Identifies the Nature of Order.
                  This entry point is provided for orders that are
                  discontinued by the service.  This creates a DC order for
                  the order identified by ORIFN.

                            ********************

       871     NAME: ORX8
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active             EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
```

```
    ROUTINE: ORX8
  COMPONENT:  EN(ORIFN)
  VARIABLES:  ORIFN       Input
                                Pointer to the order.
              ORUPCHUK('  Output
                                =WHO ENTERED^External Format
              ORUPCHUK('  Output
                                =PATIENT LOCATION
              ORUPCHUK('  Output
                                =CURRENT AGENT/PROVIDER^External format
              ORUPCHUK('  Output
                                =WHEN ENTERED
              ORUPCHUK('  Output
                                =PROTOCOL
              ORUPCHUK('  Output
                                =CURRENT AGENT/PROVIDER^External Format
              ORUPCHUK('  Output
                                =STOP DATE
              ORUPCHUK('  Output
                                =CURRENT START DATE
              ORUPCHUK('  Output
                                =STATUS^External format
              ORUPCHUK('  Output
                                =TO (display group)^External Format
              ORUPCHUK('  Output
                                =ORDER TEXT (Multiple)
              ORUPCHUK('  Output
                                =OBJECT OF ORDER
                 This entry point returns data from the Order file (100) for
                 a particular order.
  COMPONENT:  NOTIF(ORIFN,ORNOTE)
  VARIABLES:  ORIFN       Input
                                Pointer to the order
              ORNOTE      Input
                                Pointer to the notification

                            ********************

      872     NAME: File 101
 CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active             EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 101                    ROOT: ORD(101,
       DESCRIPTION:                        TYPE: File
  This file may be referenced by packages to maintain protocols within their
  namespace.  This file may also be pointed to.

    ROUTINE:

                            ********************

      873     NAME: File 100.98
 CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active             EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 100.98                 ROOT: ORD(100.98,
       DESCRIPTION:                        TYPE: File
  This file may be referenced to determine an appropriate Display Group for
  an order in the manner:
     S ORTO=$O(^ORD(100.98,'B','OTHER HOSPITAL SERVICES',0))

    ROUTINE:

                            ********************

      874     NAME: File 100.99
 CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active             EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
```

```
             FILE: 100.99                ROOT: ORD(100.99,
      DESCRIPTION:                       TYPE: File
   This file may be referenced by packages interfacing with OE/RR to see if
   OE/RR has been installed in the manner:
       I $D(^ORD(100.99)) ...

   Packages may also setup entries in the Package Parameters portion of this
   file.

     ROUTINE:

                              ********************

       875     NAME: File 100.01
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT          Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
             FILE: 100.01                ROOT: ORD(100.01,
      DESCRIPTION:                       TYPE: File
   This file may be pointed to.

     ROUTINE:

                              ********************

       901     NAME: PSJEEU
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
             FILE:                       ROOT:
      DESCRIPTION:                       TYPE: Routine
   This is a set of utilities that can be used to create, validate and
   process order timing schedules.

     ROUTINE: PSJEEU
   COMPONENT:  ENSE
   VARIABLES:  PSJPP       Input
                                This is the package prefix as found in
                                the PACKAGE file (9.4).
               PSJSHLS     Input
                                This is executable code that sets $T to
                                be used to screen Hospital Locations when
                                editing schedules and shifts. If PSJSHLS
                                exists, DIC("S") is set to PSJSHLS. The
                                scheduler will not try to validate
                                PSJSHLS.
                  Allows the editing of the ADMINISTRATION SCHEDULE file
                  (51.1).
   COMPONENT:  ENSHE
   VARIABLES:  PSJPP       Input
                                This is the package prefix as found in
                                the PACKAGE file (9.4).
               PSJSHLS     Input
                                This is executable code that sets $T to
                                be used to screen Hospital Locations when
                                editing schedules and shifts. If PSJSHLS
                                exists, DIC("S") is set to PSJSHLS. The
                                scheduler will not try to validate
                                PSJSHLS.
                  Allows the editing of the ADMINISTRATION SHIFT file
                  (51.15).
   COMPONENT:  ENSVI
   VARIABLES:  PSJPP       Input
                                This is the package prefix as found in
                                the PACKAGE file (9.4).
               PSJX        Input
                                This is the schdule to be viewed. If only
                                the first few characters of the schedule
                                name is entered, the user will be asked
                                to select from all schedules in the
                                ADMINISTRATION SCHEDULE file (51.1)
```

```
                                beginning with these characters. If a
                                valid schedule is selected, information
                                pertaining to the schedule will be
                                displayed.
                   View standard schedule information.
   COMPONENT:   ENSV
   VARIABLES:   PSJX        Both
                                This is the schdule to be validated. If
                                only the first few characters of the
                                schedule name is entered, the user will
                                be asked to select from all schedules in
                                the ADMINISTRATION SCHEDULE file (51.1)
                                beginning with these characters. If a
                                valid schedule is selected, it's name
                                will will be returned in PSJX. If a valid
                                schedule is not selected, PSJX will be
                                killed.
                PSJPP       Input
                                This is the package prefix as found in
                                the PACKAGE file (9.4).
                PSJM        Output
                                This is the frequency in minutes that the
                                action is to be taken. This will be null
                                if PSGX is invalid.
                PSJAT       Output
                                These are the administration times or
                                shifts that are associated with the
                                selected schedule. This will be null if
                                PSGX is invalid.
                PSJY        Output
                                This is a pointer to the ADMINISTRATION
                                SCHEDULE file (51.1) if PSJX is found in
                                the file. This will be null if PSJX is
                                invalid or not found.
                PSJTS       Output
                                This is a code representing the type of
                                schedule. This will be null if the
                                schedule is invalid.
                PSJAX       Output
                                This is the maximum days continuous
                                orders last for the selected schedule, or
                                null if not found.
                PSJW        Input
                                This is a pointer to the HOSPITAL
                                LOCATION file (44). This is an optional
                                variable that may be used to determine
                                the administration times or shifts by
                                location.
                PSJNE       Input
                                If this optional variable is defined,
                                there is no dialogue with the user.
                   Validates a schedule and gives the administration times or
                   shifts and frequency (in minutes) of the schedule.
   COMPONENT:   ENATV
   VARIABLES:   X           Both
                                This contains the administration times to
                                be validated. X will be killed if the
                                administration times are invalid.
                   Validates administration times. This may be used in an
                   input transform.
   COMPONENT:   ENSHV
   VARIABLES:   X           Both
                                This should be set to the administration
                                shift to be validated. If the
                                administration shift passed in X is
                                invalid, X will be killed.
                   Validates shifts. If the shift passed in X is invalid X
                   will be killed.
   COMPONENT:   ENSPU
   VARIABLES:   PSJSCH      Input
                                This is the schedule to be processed.
                PSJM        Input
                                This is the frequency (in minutes) that
                                an action is to take place. Used for
                                continuous and range schedules.
```

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                PSJAT       Input
                                    This is either a set of administration
                                    times or shifts, depending on the type of
                                    schedule. If it is administration times,
                                    it will be similar to:
                                    PSJAT="04-08-12-16-20". If it is shifts,
                                    it will be similar to:
                                    PSJAT="M-E",PSJAT("M")="05-11",PSJAT("E")="1
8-22".
                PSJTS       Input
                                    This is a code representing the type of
                                    schedule defined in PSJSCH. The codes
                                    are: C - CONTINUE; D - DAY OF THE WEEK;
                                    DR - DAY OF THE WEEK-RANGE; O - ONE-TIME;
                                    R - RANGE; and S - SHIFT.
                PSJSD       Input
                                    This is the start date/time of the order.
                PSJFD       Input
                                    This is the stop date/time of the period
                                    where the action is to take place.
                PSJOSD      Input
                                    This is the start date/time of the order.
                                    If PSJOSD is not found, PSJSD is used.
                PSJOFD      Input
                                    This is the stop date/time of the order
                                    (action to take place). If PSJOFD is not
                                    found, PSJFD is used.
                PSJC        Output
                                    This is the number of times (and when) an
                                    action is to take place.
                   Calculates the number of times (and when) an action is to
                   take place.
   COMPONENT:   ENDSD
   VARIABLES:   PSJSCH      Input
                                    This is the name of the schedule to be
                                    used in determining the start date/time.
                PSJAT       Input
                                    This is either a set of administration
                                    times or shifts, depending on the type of
                                    schedule. If it is administration times,
                                    it will be similar to:
                                    PSJAT="04-08-12-16-20". If it is shifts,
                                    it will be similar to:
                                    PSJAT="M-E",PSJAT("M")="05-11",PSJAT("E")="1
8-22".
                PSJTS       Input
                                    This is a code representing the type of
                                    schedule defined in PSJSCH. The codes
                                    are: C - CONTINUE; D - DAY OF THE WEEK;
                                    DR - DAY OF THE WEEK-RANGE; O - ONE-TIME;
                                    R - RANGE; and S - SHIFT.
                PSJX        Output
                                    This will be returned as either a
                                    date/time in VA FileMan interal format,
                                    or null if the start date/time cannot be
                                    calculated.
                   Provides a date/time that might be used as a default value
                   for the start date of an order.

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      1181      NAME: DGPM MOVEMENT EVENT
  CUSTODIAL PACKAGE: REGISTRATION                Albany
SUBSCRIBING PACKAGE: CONTROLLED SUBSTAN          Birmingham
                        The subscribing protocol is:  PSD PAT ADT
                     SCHEDULING                  Albany
                        The subscribing protocol is: SD APPT STATUS
                     ORDER ENTRY/RESULT          Salt Lake City
                        The subscribing protocols are: ORU AUTOLIST, ORU
                        PATIENT MOVMT
                     INTEGRATED BILLING          Albany
                        The subscribing protocol is: IB CATEGORY C BILLING
                     MENTAL HEALTH               Dallas
                        The subscribing protocol is: YS PATIENT MOVEMENT
                     DIETETICS                   Chicago
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                     The subscribing protocol is: FHWMAS
                  ADVERSE REACTION T           Chicago
                     The subscribing protocol is: GMRADGPM MARK CHART
                  GEN. MED. REC. - V           Chicago
                     The subscribing protocol is: GMRVOR DGPM
                  HINQ                         Albany
                     The subscribing protocol is: DVB ADMISSION HINQ
                  INPATIENT MEDICATI           Birmingham
                     The subscribing protocol is:  PSJ OR PAT ADT
                  VISIT TRACKING               Albany
                     The subscribing protocol is:  VSIT PATIENT STATUS
            USAGE: Controlled Subscri APPROVED: APPROVED
           STATUS: Active              EXPIRES:
         DURATION: Till Otherwise Agr  VERSION:
             FILE:                        ROOT:
      DESCRIPTION:                        TYPE: Other
   This is the event invoked by the registration, discharge, or transfer of a
   patient.  Actions from any application area that are dependent on this
   event may be added to this event upon approval of the DBIC.


   Please note:  If a package has an installation which affects one of the
   protocols on DGPM MOVEMENT EVENTS, we strongly urge you to disable the
   following options during installation:

           Admit a Patient               DG ADMIT PATIENT
           Transfer a Patient            DG TRANSFER PATIENT
           Treating Specialty Transfer   DG TREATING TRANSFER
           Check-in Lodger               DGPM CHECK-IN
           Lodger Check-out              DGPM CHECK-OUT
           Discharge a Patient           DG DISCHARGE PATIENT
           Disposition and Application   DG DISPOSITION APPLICATION
           Extended Bed Control          DG BED CONTROL EXTENDED
           Load/Edit PTF Data            DG PTF SCREEN
           Quick Load/Edit PTF Data      DG PTF QUICK LOAD
           Enter/Edit an IRT             DGJ IRT ENTER/EDIT

                              ********************

     1377     NAME: WARD LOCATION
  CUSTODIAL PACKAGE: REGISTRATION                Albany
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
            USAGE: Private            APPROVED: APPROVED
           STATUS: Active              EXPIRES:
         DURATION: Till Otherwise Agr  VERSION:
             FILE: 42                     ROOT: DIC(42,
      DESCRIPTION:                        TYPE: File
   Nursing and Vitals/Measurments can access the Ward Location (42) file
   fields/cross-references as described in this DBIA.
     ^DIC(42,D0,
       .03      SERVICE              0;3      Direct Global Read
        Direct global access on the "B" cross-reference of the Ward Location
        (42) file is supported by this DBIA.

     ROUTINE:

                              ********************

     1378     NAME: DGPM
  CUSTODIAL PACKAGE: REGISTRATION                Albany
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
            USAGE: Private            APPROVED: APPROVED
           STATUS: Active              EXPIRES:
         DURATION: Till Otherwise Agr  VERSION:
             FILE: 405                    ROOT: DGPM(
      DESCRIPTION:                        TYPE: File
   Nursing directly references the ^DGPM global.  We would like permissionto
   reference the following fields/cross-references using direct global reads:
     .01  DATE/TIME
     .02  TRANSACTION
     .03  PATIENT
     .06  WARD LOCATION
     .14  ADMISSION/CHECK-IN MOVEMENT
     "AMV3" cross-reference
     "APMV" cross-reference
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     "ATID1" cross-reference
     "ATID2" cross-reference
     "ATID3" cross-reference
     "CN" cross reference
     ^DGPM(D0,0)
       .01      DATE/TIME           0;1      Direct Global Read
       .02      TRANSACTION         0;2      Direct Global Read
       .03      PATIENT             0;3      Direct Global Read
       .06      WARD LOCATION       0;6      Direct Global Read
       .14      ADMISSION/CHECK-IN M 0;14    Direct Global Read
     ^DGPM('AMV3',
        Direct global read to the "AMV3" cross-reference.
     ^DGPM('APMV',
        Direct global read to the "APMV" cross-reference.
     ^DGPM('ATID1',
        Direct global read to the "ATID1" cross-reference.
     ^DGPM('ATID2',
        Direct global read to the "ATID2" cross-reference.
     ^DGPM('ATID3',
        Direct global read to the "ATID3" cross-reference.
     ^DGPM('CN',
        Direct global read to the "CN" cross-reference.

     ROUTINE:

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      1380     NAME: ROOM-BED
  CUSTODIAL PACKAGE: REGISTRATION                Albany
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active             EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 405.4                  ROOT: DG(405.4,
       DESCRIPTION:                        TYPE: File
   Nursing, Vitals/Measurements and Intake/Output have permission to access
   the following elements in the Room-Bed (405.4) file.

      ^DG(405.4,0) to test for existence of file.
      "W" cross-reference
      Direct global read of the NAME (.01) field.
     ^DG(405.4,0)
        Direct global reference of this node to check for existence of
        Room-Bed (405.4) file.
     ^DG(405.4,D0,0)
       .01      NAME                0;1      Direct Global Read
     ^DG(405.4,'W',
        Direct global read on the "W" cross-reference.

     ROUTINE:

                              ********************

      1391     NAME: GMRY NUR SHIFT/OTHER
  CUSTODIAL PACKAGE: INTAKE/OUTPUT               Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active             EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 126.95                 ROOT: GMRD(126.95,
       DESCRIPTION:                        TYPE: File
   Nursing and Vitals/Measurements have permission to access the GMRY NUR
   Shift/Other file fields described in this DBIA.
     ^GMRD(126.95,D0,
       1        NIGHT               1;1      Direct Global Read
       2        DAY                 1;2      Direct Global Read
       3        EVENING             1;3      Direct Global Read

     ROUTINE:

                              ********************

      1392     NAME: GMRY INPUT TYPE
  CUSTODIAL PACKAGE: INTAKE/OUTPUT               Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
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             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 126.56                 ROOT: GMRD(126.56,
       DESCRIPTION:                        TYPE: File
   Vitals/Measurments has permission to access the GMRY Input Type file as
   described in this DBIA.
     ^GMRD(126.56,D0,
       .01      NAME                0;1      Direct Global Read
        Direct global read of the "C" cross-reference of the GMRY Input Type
        file is also supported.

     ROUTINE:

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      1393     NAME: GMRY OUTPUT TYPE
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 126.58                 ROOT: GMRD(126.58,
       DESCRIPTION:                        TYPE: File
   Vitals/Measurements has permission to access the GMRY Output Type (126.58)
   file as described in this DBIA.
     ^GMRD(126.58,D0,
       .01      OUTPUT TYPE         0;1      Direct Global Read
        Direct global read of the "C" cross-reference of the GMRY Output Type
        file is also supported.

     ROUTINE:

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      1405     NAME: ORDER
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 100                    ROOT: OR(100,
       DESCRIPTION:                        TYPE: File
   Vitals/Measurements has permission to access the Order (100) file as
   described in this DBIA.  This agreement shall be only valid for V2.5 of
   the Order Entry package.
     ^OR(100,'AO',
        Direct global read is allowed on the "AO" cross-reference of the
        Order (100) file.

     ROUTINE:

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      1412     NAME: DD GLOBAL
  CUSTODIAL PACKAGE: VA FILEMAN                   San Francisco
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
                     TEXT GENERATOR               Chicago
                     VITALS/MEASUREMENT           Chicago
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 0                      ROOT: DD(
       DESCRIPTION:                        TYPE: File
   The Nursing, Vitals/Measurements, and Text Generator packages have been
   granted permission to access the DD global as defined in this DBIA.
   GLOBAL REFERENCE:
     ^DD(124.2,0,'DIK')
      Nursing and Text Generator have permission to kill this node to
      uncompile cross-references on the Aggregate Term (124.2) file.
   GLOBAL REFERENCE:
     ^DD(file,field,
       .01      LABEL               0;1      Direct Global Read
        Nursing can direct global read the name of a field, and direct global
        read to loop through the ^DD global to get all of the fields for a
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      particular Nursing file.  file is in the range of the Nursing file
      number space assigned by the DBA, and field is a valid field number
      in file.
     .3       POINTER              0;3      Direct Global Read
      Nursing can access this field to decode a set of codes to its
      external format.  file is in the range of the Nursing file number
      space assigned by the DBA, and field is a valid field number in file.
     .5       INPUT TRANSFORM      0;5,99   Direct Global Read
      Nursing can execute the input transform directly for its
      files/fields.  file is in the range of the Nursing file number space
      assigned by the DBA, and field is a valid field number in file.
     3        'HELP'-PROMPT        3;E1,245 Direct Global Read
      Nursing can read the 'Help'-Prompt field for its files/fields.  file
      is in the range of the Nursing file number space assigned by the DBA,
      and field is a valid field number in file.
     4        XECUTABLE 'HELP'     4;E1,245 Direct Global Read
      Nursing can read the Xecutable 'Help' for its files/fields.  file is
      in the range of the Nursing file number space assigned by the DBA,
      and field is a valid field number in file.
     8        READ ACCESS (OPTIONA 8;E1,245 Direct Global Write
      The Text Generator and Vitals/Measurements can write the Read Access
      (Optional) for its files/fields.  file is in the appropriate package
      numberspace as assigned by the DBA, and field is a valid field number
      for file.
     9        WRITE ACCESS (OPTION 9;E1,245 Direct Global Write
      The Text Generator and Vitals/Measurements can write the Write Access
      (Optional) for its files/fields.  file is in the appropriate
      numberspace as assigned by the DBA, and field is a valid field number
      of file.
     21       DESCRIPTION          21;0     Direct Global Read
      Nursing is allowed direct global read access to the Descriptions for
      fields to print them out.  Also included here are the direct global
      read references to the ^DD(file,field,21, subtree that would be
      necessary to read this WP field.  file is a valid number in the
      Nursing numbers space as assigned by the DBA, and field is a valid
      field number for file.
GLOBAL REFERENCE:
  ^DD(file,field,1,xref_ien,
    1        SET STATEMENT        1;E1,245 Direct Global Read
     Nursing and the Text Generator are allowed to directly read the
     Cross-reference Set Statements for their package so they can be
     executed.  file is a valid number in the appropriate number space as
     assigned by the DBA, field is a valid field number of file, and
     xref_ien is the cross-reference ien being used.
    2        KILL STATEMENT       2;E1,245 Direct Global Read
     Nursing and the Text Generator are allowed to directly read the
     Cross-reference Kill Statements for their package so they can be
     executed.  file is a valid number in the appropriate number space as
     assigned by the DBA, field is a valid field number of file, and
     xref_ien is the cross-reference ien being used.
   Nursing and the Text Generator are allowed direct global read access to
   ^DD(file,field,1,xref_ien) in order to loop through the cross-reference
   multiple for their files, where file is in the package numberspace
   assigned by the DBA, field is a valid field in file, and xref_ien is
   the ien of the cross-reference for field in file.
GLOBAL REFERENCE:
  ^DD(file,'SB',
   Nursing can direct global read the ^DD(file,"SB") cross-reference to
   determine the sub-files for a particular file/sub-file.  file is a
   valid number in the Nursing numberspace as assigned by the DBA.
GLOBAL REFERENCE:
  ^DD(124.21,0,'DIK')
   Vitals, Nursing & Text Generator have permission to kill off this node.
GLOBAL REFERENCE:
  ^DD(124.2,0,'DIKOLD')
   Vitals, Nursing & Text Generator have permission to kill off this node.
GLOBAL REFERENCE:
  ^DD(2,0,'IX','ANURS',2,.1)
   Nursing has permission to direct global kill/write this node when
   setting up the "ANURS" cross-reference in the Patient file. MAS has
   already approved this, see MailMessage #18109934.
GLOBAL REFERENCE:
  ^DD(2,.1,1,
   Nursing can direct global write the following nodes:
    ^DD(2,.1,1,xref_ien,0)="2^ANURS^MUMPS", ^DD(2,.1,1,xref_ien,1)="S
```

```
       %X=X,X=""NURSCPL"" X ^%ZOSF(""TEST"") S X=%X D:$T EN1^NURSCPL",
       ^DD(2,.1,1,xref_ien,2)="S %X=X,X=""NURSCPL"" X ^%ZOSF(""TEST"") S X=%X
       D:$T EN2^NURSCPL". xref_ien is the next available cross-reference ien
      for field .1.  A direct global read is allowed on ^DD(2,.1,1,xref_ien)
      to loop through the xrefs of field .1. Nursing can direct global kill
      the ANURS cross-reference via a direct global kill of the
      ^DD(2,.1,1,xref_ien) node.  xref_ien is ien of the ANURS xref (where
      $P(^DD(2,.1,xref_ien,0),"^",2)="ANURS"). MAS has already approved this
      use of their file, ref. msg #18109934.

                              **************************

      1427     NAME: PHARMACY SYSTEM
  CUSTODIAL PACKAGE: PHARMACY                      Birmingham
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT            Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 59.7                   ROOT: PS(59.7,
        DESCRIPTION:                        TYPE: File
   Vitals/Measurements can access the Pharmacy Sytsem (59.7) file as
   described in this DBIA.
     ^PS(59.7,D0,
       20.1     VERSION NUMBER LAST  20;1     Direct Global Read

     ROUTINE:

                              ********************

      1430     NAME: GMRYRP1
  CUSTODIAL PACKAGE: INTAKE/OUTPUT               Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   Nursing has permission to access the NEXT entry point for the GMRYRP1
   routine.  Vitals/Measurements is allowed to use the entry STARTD for the
   GMRYRP1 routine.

     ROUTINE: GMRYRP1
   COMPONENT:  NEXT
   VARIABLES:  GMRFIN      Input
                                Date/time the current nursing shift ends.
               GLASTDT     Output
                                Date the day before the date stored in
                                GMRFIN.
               GDTSTRT     Output
                                Date the nursing shift starts.
               GNXTDT      Output
                                Date the day after the date stored in
                                GDTSTRT.
               GMRNIT      Output
                                Time the nursing night shift starts.
               GDTFIN      Output
                                Date the nursing shift ends.
                  This entry point is called to initialize variables required
                  for the SETSIFT^GMRYRP2 call.
   COMPONENT:  STARTD
   VARIABLES:  DFN         Input
                                Patient IEN.
               GMRSTRT     Both
                                Input: Start date of information extract.
                                Output: Start date_night shift start
                                hour.
               GMRFIN      Both
                                Input: End date of information extract.
                                Output: End date_evening shift end hour.
               GMROUT      Both
                                Passed in with a value of 0.  Returned a
                                value of 1 if exited abnormally.
               GRPT        Input
                                Set to 5 to indicate that the data are
                                requested the V/M Graphic Reports.
```

```
               GMRNIT      Input
                                  Nursing night shift start hour defined in
                                  the GMRY NUR Shift/Other file (126.95).
               GMRDAY      Input
                                  Nursing day shift start hour defined in
                                  the GMRY NUR Shift/Other file (126.95).
               GMREVE      Input
                                  Nursing evening shift start hour defined
                                  in the GMRY NUR Shift/Other file
                                  (126.95).
                  This entry is called to set up the start date/time and end
                  date/time of information extract according to the nursing
                  shift starting hours defined in the GMRY NUR Shift/Other
                  file (126.95).

                            ********************

     1432     NAME: GMRYUT0
  CUSTODIAL PACKAGE: INTAKE/OUTPUT               Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   Vitals/Measurements can access the GMTRYUT0 routine as described in this
   DBIA.

     ROUTINE: GMRYUT0
   COMPONENT:  PT
   VARIABLES:  DFN         Input
                                  Patient IEN.
               GMRAGE      Output
                                  Age of patient.
               GMRBED      Output
                                  Room-bed for patient.
               GMRSEX      Output
                                  Patient sex.
               GMRVADM     Output
                                  Patient admission date.
               GMRWARD     Output
                                  Pointer to Ward Location (42) file
                                  denoting patient's location.
               GMRWARD(1)  Output
                                  Free text of patient's location.
                  This entry is used to call 1^VADPT to set up VAIN and VADM
                  local variables.

                            ********************

     1434     NAME: GMRYUT9
  CUSTODIAL PACKAGE: INTAKE/OUTPUT               Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT          Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   Vitals/Measurements can access the GMRYUT9 routine as described in this
   DBIA.

     ROUTINE: GMRYUT9
   COMPONENT:  PATIENT
   VARIABLES:  DFN         Input
                                  Patient IEN.
               GMRNUR      Input
                                  This is set to 1 to indicate return data
                                  from Nurs Patient file.
               SSN         Output
                                  Patient SSN.
               GMRAGE      Output
                                  Patient's age.
               GMRSEX      Output
                                  Patient's sex.
               GMRBED      Output
```

```
                                  Patient's room-bed.
              GMRVADM     Output
                                  Patient admission date/time.
              GMRWARD     Output
                                  Pointer to Ward Location (42) file
                                  denoting patient's location.
              GMRWARD(1)  Output
                                  Free text version of patient location.
                 This entry point extracts information from Nurs Patient
                 (214) file.

                            ********************

      1435     NAME: GMRYRP2
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   Nursing and Vitals/Measurements can access the following entry points in
   the GMRYRP2 routine.

     ROUTINE: GMRYRP2
   COMPONENT:  SAVE
   VARIABLES:  DA(1)       Input
                                  Pointer to the GMRY Patient I/O file
                                  (126).
               II          Input
                                  Passed in with a value of "IN" or "OUT"
                                  subscript of the GMRY Patient I/O file
                                  (126).
               GMRSTRT     Input
                                  Date/time the current nursing shift
                                  starts.
               GMRFIN      Input
                                  Date/time the current nursing shift ends.
               TMP         Output
                                  ^TMP($J,"GMRY") global contains intake
                                  and output information for a selected
                                  patient.
                  This entry call extracts the intake and output information
                  and stores the data in ^TMP($J,"GMRY") for a selected
                  patient.
   COMPONENT:  SAVEIV
   VARIABLES:  DA(1)       Input
                                  Pointer to the Patient I/O file (126).
               GMRSTRT     Input
                                  Date/time the current nursing shift
                                  starts.
               GMRFIN      Input
                                  Date/time the current nursing shift ends.
               TMP         Output
                                  ^TMP($J,"GMRY") global contains the
                                  patient intravenous infusion information.
                  This entry call extracts patient intravenous infusion
                  information and stores the data in ^TMP($J,"GMRY") global.
   COMPONENT:  SETSIFT
   VARIABLES:  GMRINDT     Input
                                  Date/time the I/O data was entered.
               GDTSTRT     Input
                                  Date the nursing shift starts.
               GDTFIN      Input
                                  Date the nursing shift ends.
               GLASTDT     Input
                                  Date the day before the current nursing
                                  shift ends.
               GSHIFT      Output
                                  Value = "SH-1"   night shift,
                                        = "SH-2"   day shift,
                                        = "SH-3"   evening shift.
                  This entry is called to assign the nursing shift (night,
                  day or evening) according to the date/time the I/O data was
                  entered.
```

```
   COMPONENT:  GMRYRP2
   VARIABLES:  DFN         Input
                                Patient IEN.
               GMRSTRT     Input
                                Start date for the information extract.
               GMRFIN      Input
                                End date for the information extract.
                  This routine is called by the Vitals/Measurements to
                  extract patient intake and output information entered
                  within a selected date range.

                            ********************

      1436     NAME: GMRYRP3
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   Nursing and Vitals/Measurements can access the following entry point in
   the routine GMRYRP3.

     ROUTINE: GMRYRP3
   COMPONENT:  REPORT1
   VARIABLES:  GRPT        Input
                                Type of intake/output report.  Set GRPT =
                                10 for the Nursing End of Shift Report.
                                Set GRPT = 5 for the V/M Graphic Reports.
               GQ          Input
                                Passed in with a value of 0, required by
                                the GMRYRP3 routine.
               GQT         Input
                                Passed in with a value of 0, required by
                                the GMRYRP3 routine.
               GMROUT      Both
                                This variable indicates whether the user
                                abnormally exited the process.  It is
                                passed in with a value of 0.
               TMP         Both
                                ^TMP($J,"GMRY") contains the intake,
                                output and intravenous infusion data for
                                a patient.  If the data is requested by
                                the Vitals/Measurements, ^TMP($J,"GMR")
                                is also used to store the aggregated
                                information.
               GTOTLI      Output
                                Intake grand total.
               GTOTLO      Output
                                Output grand total.
               GN(1)       Output
                                Number of intake types listed in the GMRY
                                Input Type file (126.56).
               GN(2)       Output
                                Number of output types listed in the GMRY
                                Output Type file (126.58).
               GIN         Output
                                Intake nursing shift total.
               GOUT        Output
                                Output nursing shift total.
               GTOTIN      Output
                                Intake day total.
               GTOTOUT     Output
                                Output day total.
                  The Nursing End of Shift Report calls this entry point to
                  aggregate the data obtained from the execution of
                  SAVE^GMRYRP2 and ^GMRYRP2.  The V/M Graphic Reports call
                  this entry point to aggregate data obtained from the
                  execution of STARTD^GMRYRP1, PT^GMRYUT0 and ^GMRYRP2.

                            **************************

      1957     NAME: File Security Codes
  CUSTODIAL PACKAGE: VA FILEMAN                   San Francisco
```

```
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
                     GMRY GEN. MED. REC           Chicago
                     GEN. MED. REC. - V           Chicago
                     TEXT GENERATOR               Chicago
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 1                      ROOT: DIC
       DESCRIPTION:                        TYPE: File
   The Gen. Med. Rec. - I/O (Intake and Output), Gen. Med. Red. - Vitals
   (Vitals/Measurements), Nursing Service and Text Generator packages have
   permission to set the security nodes (i.e., "DD", "RD", "DEL", "LAYGO",
   and "WR") in FILE 1 for those files within the package's number range.
   For example: S ^DIC(210,0,"DD")="@"

    Package            Number Range
    -------            ------------
    Intake & Output    126-126.95
    Vitals/Measurments 120.5-120.57
    Nursing Service    210-219.7
    Text Generator     124-124.3

   With the next release of each package, the installation process will allow
   the site to change its file security codes to match the codes as they
   appear in the documentation. The site can answer YES to change their file
   security codes to match the package documentation or NO to leave them as
   is.
```

## DBIA's where the Vitals/Measurements package is the custodian:

```
        78     NAME: DBIA78
  CUSTODIAL PACKAGE: GEN. MED. REC. - V           Chicago
SUBSCRIBING PACKAGE: HEALTH SUMMARY               Salt Lake City
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Other
   The Vitals Package developers have granted the Health Summary team
   permission to add the application group "GMTS" to ^DIC(120.51, when file
   120.51, the Vital Type file, exists.

                            ********************

      1120     NAME: GMRVUTL
  CUSTODIAL PACKAGE: GEN. MED. REC. - V           Chicago
SUBSCRIBING PACKAGE:
             USAGE: Supported          APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION:                     VERSION:
       DESCRIPTION:                        TYPE: Routine
     User can extract the latest record for a desired vital type from the
   Vital/Measurement database for a particular patient by calling
   EN6^GMRVUTL.

     Input Variables:

       DFN = The internal entry number in the Patient file (#2) for the
       patient data that is to be retrieved.

       GMRVSTR = The abbreviation of the vital/measurement desired from the
       Vital Type file (#120.51).  For example:

       S GMRVSTR="T",DFN=5 D EN6^GMRVUTL

       "T" is the abbreviation of temperature.  GMRVSTR will be killed.

     Output Variable:

       X is set to the entire zeroth node for the entry in question in the
       Vital/Measurement file (#120.5), for example, ^GMR(120.5,IEN,0),
       where IEN is the subscript in the file that contains the data.  The
       following shows the format of value containd in X.
```

```
       X=2920728.06^5^2^2920728.13482^42^2098^6^101.1

     ROUTINE: GMRVUTL
   COMPONENT:  EN6
   VARIABLES:  DFN         Input
                                The internal entry number in the Patient
                                file (#2).
               GMRVSTR     Input
                                The abbreviation of the vital/measurement
                                desired from the Vital Type file
                                (#120.51).
               X           Output
                                The entire zeroth node for the entry in
                                question in the Vital/Measurement file
                                (#120.5).
                  User can extract the latest record for a desired vital type
                  from the Vital/ Measurement database for a particular
                  patient.

                             ********************

      1381     NAME: GMRV VITAL MEASUREMENT
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 120.5                  ROOT: GMR(120.5,
        DESCRIPTION:                        TYPE: File
   Nursing has permission to access the following fields in the GMRV Vital
   Measurement (120.5) file.
     ^GMR(120.5,D0,0)
       .01      DATE/TIME VITALS TAK 0;1      Direct Global Read
       2.1      RATE                 0;8      Direct Global Read
     ^GMR(120.5,D0,2)
       2        ENTERED IN ERROR     2;1      Direct Global Read
     ^GMR(120.5,'AA',
        Direct global read on the "AA" cross-reference.

     ROUTINE:

                             ********************

      1382     NAME: GMRV VITAL TYPE
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 120.51                 ROOT: GMRD(120.51,
        DESCRIPTION:                        TYPE: File
   Nursing has permission to access the GMRV Vital Type (120.51) file.
     ^GMRD(120.51,D0,0)
       .01      NAME                 0;1      Direct Global Read
     ^GMRD(120.51,'C',
        Direct global read on the "C" cross-reference.

     ROUTINE:

                             ********************

      1431     NAME: GMRVDS0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   Nursing can access the GMRVDS0 routine as described in this DBIA.

     ROUTINE: GMRVDS0
   COMPONENT:  EN2
   VARIABLES:     This entry point allows user to print latest vital signs
```

```
                for a patient if the patient IEN is unknown.

                          ********************

     1439     NAME: GMRVDS1
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT          Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE             Chicago
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine
   Nursing can access the following entry point in the GMRVDS1 routine as
   described in this DBIA.

     ROUTINE: GMRVDS1
   COMPONENT:  EN3
   VARIABLES:  DFN         Input
                           Patient IEN.
               TMP         Input
                           ^TMP($J,patient room-bed,patient
                           name,DFN) global contains the patients
                           for the report.
               GMRVWLO     Input
                           Free text version of Nursing ward
                           location.
                  This entry point allows user to print the latest vital
                  signs by a Nursing location.

                          ********************

     1440     NAME: GMRVED0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT          Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE             Chicago
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine
   Nursing can access the following entry points described in this DBIA for
   the GMRVED0 routine.

     ROUTINE: GMRVED0
   COMPONENT:  EN3
   VARIABLES:  DFN         Input
                           Patient IEN.
               GMROUT      Both
                           This variable indicates whether the user
                           abnormally exited the input process.  It
                           is passed in with a value of 0.
               GNUROP      Input
                           This variable is passed in with a value
                           of 1 to indicates that the edit process
                           is requested by the Nursing Service.
               GMRVIDT     Input
                           The date/time the vitals/measurements
                           were taken.
               GMRVHLOC    Input
                           Hospital Location file (44) pointer.
               GMRENTY     Input
                           The type of vitals/measurements to edit.
               GMRSTR      Input
                           The string of which vitals/measurements
                           to edit, for example, "T;P;R;BP;WT;".
                  This entry point allows user to enter vitals/measurements
                  for a patient.
   COMPONENT:  Q
   VARIABLES:     This entry point is called to clean up the variables used
                  by the GMRVED0.

                          ********************

     1441     NAME: GMRVEE0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT          Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE             Chicago
```

```
            USAGE: Private            APPROVED: APPROVED
           STATUS: Active              EXPIRES:
         DURATION: Till Otherwise Agr  VERSION:
             FILE:                        ROOT:
      DESCRIPTION:                        TYPE: Routine
   Nursing can access the following entry point described in this DBIA for
   the GMRVEE0 routine.

     ROUTINE: GMRVEE0
   COMPONENT:  EN2
   VARIABLES:  DFN         Input
                                  Patient IEN.
                  This entry point allows user to edit a vital/measurement
                  entered in error.

                            ********************

     1442     NAME: GMRVER0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine
   Nursing can access the following entry point described in this DBIA for
   the GMRVER0 routine.

     ROUTINE: GMRVER0
   COMPONENT:  EN1
   VARIABLES:     This entry point allows user to print vitals/measurements
                  entered in error for a patient.

                            ********************

     1443     NAME: GMRVSAS0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine
   Nursing can access the following entry point described in this DBIA for
   the GMRVSAS0 routine.

     ROUTINE: GMRVSAS0
   COMPONENT:  EN1
   VARIABLES:  GMRVX       Input
                                  This variable is passed in with a value
                                  of "T", "P", "R", "B" or "BP" as vital
                                  type code.
               GMRVX(0)    Input
                                  This variable contains vital data for the
                                  screening.
               GMRVX(1)    Output
                                  If the output value equals 0 - vital data
                                  within normal range.  If the output value
                                  equals 1 - abnormal value defined in the
                                  GMRV Vitals Parameters file (125.57).
                  This entry point is called for checking the abnormal
                  vital/measurement.

                            ********************

     1444     NAME: GMRVSC0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine
   Nursing can access the following entry points described in this DBIA for
   the GMRVSC0 routine.
```

```
    ROUTINE: GMRVSC0
  COMPONENT:  DATE
  VARIABLES:  GMROUT      Both
                                 This variable indicates whether the user
                                 abnormally exited the call.  It is passed
                                 in with a value of 0.
              GMRVSDT     Output
                                 Start date/time of the date range.
              GMRVFDT     Output
                                 End date/time of the date range.
                 This entry point allows user to define start date/time and
                 end date/time for a date range.
  COMPONENT:  EN5
  VARIABLES:  DFN         Input
                                 Patient IEN.
              GMRX        Input
                                 Patient admission date/time.
              GMROUT      Both
                                 This variable indicates whether the user
                                 abnormally exited the report process.  It
                                 is passed in with a value of 0.
              GMRVSDT     Input
                                 Start date/time of the date range.
              GMRVFDT     Input
                                 End date/time of the date range.
              GMRPG       Input
                                 This report page count is initialized
                                 with a value of 0.
                 This entry point allows user to print cumulative
                 vitals/measurements for a patient over a given date range.

                           ********************

     1445     NAME: GMRVSR0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
  Nursing can access the following entry points described in this DBIA for
  the GMRVSR0 routine.

    ROUTINE: GMRVSR0
  COMPONENT:  EN5
  VARIABLES:  DFN         Input
                                 Patient IEN.
              GFLAG       Input
                                 This variable is passed in with a value
                                 of 0 to indicate that the report is
                                 requested by the Nursing Service.
              GMRDATE     Input
                                 This variable is passed in with a value
                                 of "start date/time^end date/time^type of
                                 graph".
              GMRVWLO     Input
                                 Nursing location free text.
                 User can use this entry point to print V/M Graphic Reports,
                 Vital Signs Record, B/P Plotting Chart or Weight Chart.
  COMPONENT:  Q2
  VARIABLES:     This entry point is called to clean up the variables used
                 for the graphic reports.

                           ********************

     1446     NAME: GMRVUT0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
                     HEALTH SUMMARY               Salt Lake City
                     ORDER ENTRY/RESULT           Salt Lake City
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
```

```
            FILE:                          ROOT:
     DESCRIPTION:                          TYPE: Routine
This routine will return vital/measurement for a patient over a given
date/time range.

  ROUTINE: GMRVUT0
COMPONENT:  EN1
VARIABLES:  DFN          Input
                                 Patient IEN.
            GMRVSTR      Input
                                 Types of vitals/measurements desired.
                                 Use the abbreviations found in the GMRV
                                 Vital Type file (120.51).  For multiple
                                 vitals, use the ; as a delimiter, for
                                 example, "T;P;R;BP;".
            GMRVSTR(0)   Input
                                 This variable specifies which
                                 vital/measurement data will be returned.
                                 The variable has four pieces, A^B^C^D,
                                 where:

                                   A=Start date/time (FM format) of
                                 vital/measurment data to be returned.
                                   B=End date/time (FM format) of
                                 vital/measurement data to be returned.
                                   C=Number of occurences (numeric) of
                                 vital/measurement data to be returned.
                                   D=Parameter to govern sort order of
                                 return array.  The value of this
                                    piece can either be 0 or 1.  If it is
                                 0, the return data will be sorted
                                    by type, then by date/time entered.
                                 If it is 1, the return data will
                                    be sorted by date/time entered, then
                                 by type.  See output variable
                                    ^UTILITY for more information.


            UTILITY      Output
                                 The output array is ^UTILITY($J,"GMRVD").
                                 The subscripts of this array are governed
                                 by the 4th piece of the input variable
                                 GMRVSTR(0).
                                 If $P(GMRVSTR(0),"^",4) is true, the
                                 return array will be:
                                    ^UTILITY($J,"GMRVD",RDT,TYP,IEN)=DATA
                                 If $P(GMRVSTR(0),"^",4) is false, the
                                 return array will be:
                                    ^UTILITY($J,"GMRVD",TYP,RDT,IEN)=DATA
                                 In the above, the following abbreviations
                                 translate as follows:
                                    RDT = Reverse date/time
                                 vital/measurement was taken in format
                                          9999999-(Date/time taken).
                                    TYP = Abbreviation of
                                 vital/measurement type from GMRVSTR
                                 variable.
                                    IEN = Entry in GMRV Vital/Measurement
                                 (120.5) file of this data.
                                   DATA = Data about this
                                 vital/measurement with the following
                                 format,

                                 VDT^DFN^ITYP^EDT^LOC^USER^ISITE^RATE^IQUAL^S
ITE^QUAL^ABN^UNIT,
                                          where:
                                            VDT = Date/time
                                 vital/measurement taken (FM format)
                                            DFN = IEN for patient in
                                 Patient file.
                                           ITYP = IEN for vital type in
                                 GMRV Vital Type file.
                                            EDT = Date/time
                                 vital/measurement entered (FM format)
                                            LOC = IEN for patient location
```

```
                                    in Hospital Location file.
                                          USER = User who entered data;
                                    IEN in New Person file.
                                         ISITE = IEN for site in GMRV
                                    Vital Site file.
                                          RATE = Rate for this
                                    vital/measurement (alphanumeric).
                                         IQUAL = IEN for quality in GMRV
                                    Vital Quality file.
                                          SITE = Site of
                                    vital/measurement (free text).
                                          QUAL = Quality of
                                    vital/measurement (free text).
                                           ABN = Flag indicating whether
                                    vital/measurement is abnormal.
                                                * indicates abnormal,
                                    null indicates normal.
                                          UNIT = Units of measurement for
                                    rate when appropriate, e.g.
                                                 Centigrade for
                                    temperature, Kg for weight and centimeter
                                                 for height.
            GMRVSTR('L  Input
                                    This is an optional variable.  It will be
                                    set to an ^ delimeted list of Hospital
                                    Location Types, see Type (2) field of
                                    Hospital Location (44) file for a list of
                                    types.  The first piece and last piece of
                                    the list must be null, i.e., ^C^M^.
               User can use this entry to gather patient vital/measurement
               data.

                          ********************

     1447     NAME: GMRVUT2
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   Nursing can access the following entry point described in this DBIA for
   the GMRVUT2 routine.

     ROUTINE: GMRVUT2
   COMPONENT:  SETU2
   VARIABLES:  DFN         Input
                                    Patient IEN.
               GMRVSTR     Input
                                    GMRVSTR(0) is passed in with a value of
                                    "^^1^1".  GMRVSTR("T") is passed in with
                                    the abbreviation "WT" found in the GMRV
                                    Vital Type file (120.51).  GMRVSTR("IEN")
                                    is passed in with a GMRV Vital
                                    Measurement file (120.5) pointer.
                                    GMRVSTR("R") is passed in with the
                                    date/time the weight was measured.
               UTILITY     Output
                                    The output array ^UTILITY($J,"GMRD")
                                    contains the desired patient weight.
               This entry is used to extract the last weight measurement
               for a patient.

                          ********************

     1448     NAME: GMRVVS0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   Nursing can access the following entry points described in this DBIA for
```

```
   the GMRVVS0 routine.

     ROUTINE: GMRVVS0
   COMPONENT:  EN1
   VARIABLES:  DFN         Input
                                  Patient IEN.
               GFLAG       Input
                                  This variable is passed in with a value
                                  of 0 to indicate that the report is
                                  requested by the Nursing Service.
               GMROUT      Both
                                  This variable indicates whether the user
                                  abnormally exited the report process.  It
                                  is passed in with a value of 0.
               GMRNUR      Input
                                  This variable is set to a value of 0 to
                                  indicate that the proces is requested by
                                  the Nursing Service.
               GMRSTRT     Input
                                  Start date/time for the report.
               GMRFIN      Input
                                  End date/time for the report.
                  This entry point is used to print the Expanded SF 511
                  Report (Itemized I/O).
   COMPONENT:  DATE
   VARIABLES:  GMROUT      Both
                                  This variable indicates whether the user
                                  abnormally exited the process.  It is
                                  passed in with a value of 0.
               GMRSTRT     Output
                                  Start date/time user entered.
               GMRFIN      Output
                                  End date/time user entered.
                  User can use this entry to set up start date/time and end
                  date/time for the report desired.
   COMPONENT:  Q2
   VARIABLES:     This entry point is called to clean up the variables used
                  by the GMRVVS0 routine.

                            ********************

      1589     NAME: GMRVPCE0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: AUTOMATED INFO COL           Albany
                        Only are requesting use of RATECHK and HELP entry
                        points.
                     PCE PATIENT CARE E           Salt Lake City
                        Only are requesting use of STORE and VALIDATE entry
                        points.
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine
   The GMRVPCE0 routine can be used to enter data into the
   Vitals/Measurements package (using PCE Device Interface Specification),
   validate measurement data (which uses PCE Device Interface Specification),
   print help for a particular measurement, or validate a particular
   measurement.

     ROUTINE: GMRVPCE0
   COMPONENT:  VALIDATE(PXCA)
   VARIABLES:  PXCA        Both
                                  PXCA is the the array which contains
                                  measurement data to be validated.  The
                                  array is defined in the PCE Device
                                  Interface Specification and must be
                                  passed by reference, i.e., .PXCA.  The
                                  nodes in the array that are used are
                                  described below, but their definitions
                                  can be found in the PCE Device Interface
                                  Specification.  PXCA("ENCOUNTER"),
                                  PXCA("VITALS") and PXCA("SOURCE") are
                                  used by VALIDATE and are input variables.
                                  PXCA("ERROR") or PXCA("WARNING") may be
```

```
                                    returned if data is invalid or duplicate.
                     Validate measurement data which is in format described in
                     PCE Device Interface Specification.  Returns PXCA("ERROR")
                     if data not valid.
   COMPONENT:  STORE(PXCA)
   VARIABLES:  PXCA          Both
                                    PXCA is the the array which contains
                                    measurement data to be validated.  The
                                    array is defined in the PCE Device
                                    Interface Specification and must be
                                    passed by reference, i.e., .PXCA.  The
                                    nodes in the array that are used are
                                    described below, but their definitions
                                    can be found in the PCE Device Interface
                                    Specification.  PXCA("ENCOUNTER"),
                                    PXCA("VITALS") and PXCA("SOURCE") are
                                    used by STORE and are input variables.
                                    PXCA("ERROR") or PXCA("WARNING") may be
                                    returned if data is invalid or duplicate.
                     This component will validate and store data in the
                     Vitals/Measurements database which is in the format
                     described in the PCE Device Interface Specification.  It
                     will return PXCA("ERROR") if there was a problem with the
                     data.
   COMPONENT:  HELP(TYPE,HLPARRAY)
   VARIABLES:  TYPE          Input
                                    Type of measurement.  This is a required
                                    variable and is the abbreviation for the
                                    measurement type found in the PCE Device
                                    Interface Specification.
               HLPARRAY      Input
                                    This is an optional variable describing
                                    location where the help will be found
                                    after the procedure call.  This is a
                                    closed array reference, and if not
                                    specified, data will be returned in
                                    ^TMP($J,"GMRVHELP").
               TMP($J,'GM    Output
                                    Either this variable or the array defined
                                    by HLPARRAY will contain the help for
                                    this measurement type.  The format is
                                    ^TMP($J,"GMRVHELP",X) where X is a number
                                    between 1 and the number of lines of help
                                    text.
                     This procedure will return help for a particular
                     measurement type.
   COMPONENT:  $$RATECHK(TYPE,RATE,UNIT)
   VARIABLES:  TYPE          Input
                                    Type of measurement.  This is a required
                                    variable and is the abbreviation for the
                                    measurement type found in the PCE Device
                                    Interface Specification.
               RATE          Input
                                    The rate to be validated for this
                                    measurement type.  This variable is
                                    required.
               UNIT          Input
                                    This is an optional variable which will
                                    contain the units of measurement for
                                    RATE.
               $$RATECHK     Output
                                    The function value will either be 1, rate
                                    is valid, or 0 rate is not valid.
                     This function will validate a rate for a particular
                     measurement type.

                              ********************

      1927     NAME: Vitals File Access for CPRS/OERR - GMR(120.5
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
              USAGE: Private            APPROVED:
             STATUS: Pending             EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 120.5                  ROOT: GMR
```

```
      DESCRIPTION:                          TYPE: File
   The file GMR(120.5 is supported by Vitals/Measurements for use by CPRS/
   OERR to return most recent vitals for a patient.  The "AA" x-ref and zero
   nodes are used.

     ROUTINE:

                              ********************

      1928     NAME: Vitals File Access for CPRS/OERR - GMRD(120.51
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
              USAGE: Private            APPROVED:
             STATUS: Pending             EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 120.51                 ROOT: GMRD
      DESCRIPTION:                          TYPE: File
   The file GMRD(120.51 is supported by Vitals/Measurements for use by CPRS/
   OERR to return most recent vitals for a patient.  The "B" x-ref is used.

     ROUTINE:

                              ********************

      1938     NAME: GMRVSITE
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
              USAGE: Private            APPROVED:
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
      DESCRIPTION:                          TYPE: Routine
   The Nursing package can use the DEFAULT and CHAR entry points in the
   GMRVSITE routine of the Vitals/Measurements package.

     ROUTINE: GMRVSITE
   COMPONENT:  DEFAULT
   VARIABLES:     The Change Default Qualifiers for Temp./Pulse [NURCPE-VIT
                  VMQUALITY] option can call this entry point to change
                  default qualifiers for temperature and pulse entries in the
                  GMRV VITAL CATEGORY (#120.53) file.
   COMPONENT:  CHAR
   VARIABLES:     The Enter/Edit Vitals Qualifiers [NURCPE-VIT VMSITE] option
                  can call this entry point to configure the GMRV VITAL
                  QUALIFIER (#120.52) file entries.

                              ********************

      1940     NAME: GMRVCAQU
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
              USAGE: Private            APPROVED:
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
      DESCRIPTION:                          TYPE: Routine
   The Nursing package can call EN1^GMRVCAQU in the Vitals/Measurements
   package.

     ROUTINE: GMRVCAQU
   COMPONENT:  EN1
   VARIABLES:     The Display Vitals Category/Qualifier Table [NURCPE-VIT
                  CAT/QUAL TABLE] option can call this entry point to display
                  a table of categories and qualifiers for various
                  vitals/measurements (e.g., blood  pressure).

                              ********************

      1914     NAME: GMRVALL0
  CUSTODIAL PACKAGE: VITALS/MEASUREMENT           Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
        DESCRIPTION:                          TYPE: Routine
```

Nursing can access the following entry point described in this DBIA for GMRVED0 routine.

```
  ROUTINE: GMRVALL0
COMPONENT:  LIST
VARIABLES:  GNUROP      Input
                        This variable is passed in with a value
                        of 1 to indicate that the edit process is
                        requested by the Nursing Service.
            GMROUT      Both
                        This variable indicates whether the user
                        abnormally exited the vitals/measurements
                        selection.  It is passed in with a value
                        of 0.
            GMRENTY     Output
                        The type of vitals/measurements to edit.
            GMRSTR      Output
                        The string of which vitals/measurements
                        to edit, for example, "T;P;R;BP;".
```

This entry point displays the vitals/measurements for the User Configurable Combination option. This option allows users to select types of vitals/measurements to edit.

# Chapter 9 Internal Relations

The name space for the Vitals/Measurements package is GMRV. The user menu can be developed locally.

Each of the options under the Vitals/Measurement (GMRVMGR) menu can be independently invoked except for the options under the Vitals/Measurement Data Entry option. Before selecting the following vitals/measurements options, the ENTACT^GMRVED4 is called to set up input variables .

The following is the Vitals/Measurement Data Entry menu option.

```
NAME: GMRV V/M ENTRY MENU                MENU TEXT: Vitals/Measurement Data
Entry
  TYPE: menu                             CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - VITALS       E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This menu contains options which permit users to select the
 type of patient vitals/measurements to be entered.
ITEM: GMRV TPR ROUTINE                   SYNONYM: 1     (TPR)
  DISPLAY ORDER: 1
ITEM: GMRV TPR B/P ROUTINE               SYNONYM: 2     (TPR B/P)
  DISPLAY ORDER: 2
ITEM: GMRV PULSE                         SYNONYM: 7     (Pulse)
  DISPLAY ORDER: 7
ITEM: GMRV ADMISSION V/M                 SYNONYM: 3     (TPR B/P, Ht. and Wt.)
  DISPLAY ORDER: 3
ITEM: GMRV WEIGHT                        SYNONYM: 8     (Weight)
  DISPLAY ORDER: 8
ITEM: GMRV TPR EXT B/P                   SYNONYM: 5     (TPR and Detailed B/P)
  DISPLAY ORDER: 5
ITEM: GMRV CHANGE V/M PARAMETERS         SYNONYM: 13    (Change Date/Time
  DISPLAY ORDER: 13                                     Taken)
ITEM: GMRV EXT B/P                       SYNONYM: 6     (Detailed B/P and
  DISPLAY ORDER: 6                                      Associated Pulse)
ITEM: GMRV VMCONFIG                      SYNONYM: 12    (User Configurable
  DISPLAY ORDER: 12                                     Combination)
ITEM: GMRV CIRCUMF/GIRTH                 SYNONYM: 9     (Circumference/Girth)
  DISPLAY ORDER: 9
ITEM: GMRV O2SATURATION                  SYNONYM: 10    (Pulse Oximetry)
  DISPLAY ORDER: 10
ITEM: GMRV CVP                           SYNONYM: 11    (CVP (Central Venous
  DISPLAY ORDER: 11                                     Pressure))
ITEM: GMRV TPRBW                         SYNONYM: 4     (TPR, B/P and Wt.)
  DISPLAY ORDER: 4
  EXIT ACTION: K GMRVDBA,GMRVFLAG
  ENTRY ACTION: S GMRVFLAG=1 D ENTACT^GMRVED4
  TIMESTAMP: 56999,53874
  UPPERCASE MENU TEXT: VITALS/MEASUREMENT DATA ENTRY
```

The following are the codes of ENTACT^GMRVED4.

```
ENTACT      ; NURSING VITAL OPTIONS ENTRY ACTION
      S:'$D(GMRVFLAG) GMRVFLAG=2 I GMRVFLAG S GMRVFLAG=$S(GMRVFLAG=1:0,1:""),G
MROUT=0 D DATE^GMRVED0 S:'GMROUT GMRVDBA=GMROUT_"^"_GMRVIDT S:GMROUT XQUIT=1 K
GMROUT,GMRVIDT
      Q
```

# Chapter 10 Package-wide Variable

No package-wide variables are used in this application.

# Chapter 11 On-line Documentation

This software is found in the GMRV namespace. All routines, templates, and options begin with GMRV. File numbers are in the range of 120.5 to 120.57 and stored in the ^GMR and ^GMRD globals.

The list of all exported files and their data dictionaries can be produced by using the VA FileMan Data Dictionary Utility option, List File Attributes. File relationships can be diagrammed by using the VA FileMan Data Dictionary Utility option, Map Pointer Relationships.

Menu diagrams may be generated through the Menu Management option, Display Menus and Options. If detailed documentation is required on the application's options, it can be printed through the Menu Management option, Print Option File.

The XINDEX routine prints a cross-reference listing of all local and global variable usage as well as other information of invaluable assistance in debugging.

Throughout the application, on-line documentation is also provided at each user prompt. If you are unsure of what is being asked or how to reply during your dialogue with the computer, simply enter one or two question marks (? or ??) for help. The computer will respond with an explanation and then repeat the prompt.

# Chapter 12 SAC Exemptions

There are no SAC Exemptions associated with this package.

# Chapter 13 Software Product Security

## 1. Security Management.

No additional security measures are to be applied other than those implemented through Menu Manager and the package routines.

No additional licenses are necessary to run the software.

Confidentiality of staff and patient data and the monitoring of this confidentiality is no different than with any other paper reference.

## 2. Security Features:

a. Mail groups and alerts.

There are no mail groups associated with this software. There is one alert in the software that is generated if the package installation does not finish. The alert is sent to the IRMS staff member who ran the installation.

b. Remote systems.

The application does not transmit data to any remote system/facility database.

c. Archiving/Purging.

Refer to chapter 6, Archiving and Purging, in this manual.

d. Contingency Planning.

It is the responsibility of the using service to develop a local contingency plan to be used in the event of application problems.

e. Interfacing.

No specialized (non VA) interfaces are used or required by the application.

f. Electronic signatures.

Electronic signatures are not used by the application.

g. Menus.

There are no options of special note for the Information Security Officers (ISO's) to view.

h. Security Keys.

There are no Security Keys in this application.

i. File Security.

| NUMBER | NAME | GLOBAL NAME | DD ACC | RD ACC | WR ACC | DEL ACC | LAY ACC |
|---|---|---|---|---|---|---|---|
| 120.5 | GMRV VITAL MEASUREMENT | ^GMR(120.5, | @ | | @ | @ | @ |
| 120.51 | GMRV VITAL TYPE | ^GMRD(120.51, | @@ | | @ | @ | @@ |
| 120.52 | GMRV VITAL QUALIFIER | ^GMRD(120.52, | @@ | | @ | @ | @@ |
| 120.53 | GMRV VITAL CATEGORY | ^GMRD(120.53, | @@ | | @ | @ | @@ |
| 120.55 | GMRV ORDERS | ^GMR(120.55, | @@ | | @ | @ | @@ |
| 120.57 | GMRV VITALS PARAMETERS | ^GMRD(120.57, | @ | | @ | @ | @ |

j. References.

There are no special reference materials for this package.

k. Official Policies.

There are no special official policies for this package.

# Glossary

Access Code A unique sequence of characters known by and assigned only to the user, the system manager and/or designated alternate(s). The access code (in conjunction with the verify code) is used by the computer to identify authorized users.

Administration Schedule This is a common abbreviation for a schedule. A schedule is the frequency for which an action is to take place, such as every eight hours (Q8H) or every other day (QOD).

ADP Coordinator/ADPAC/Application Coordinator Automated Data Processing Application Coordinator. The person responsible for implementing a set of computer programs (application package) developed to support a specific functional area such as nursing, PIMS, etc.

Application A system of computer programs and files that have been specifically developed to meet the requirements of a user or group of users. Examples of VISTA applications are the PIMS and Vitals/Measurements application.

Archive The process of moving data to some other storage medium, usually a magnetic tape, and deleting the information from active storage in order to free-up disk space on the system.

Audit Trail/Logging Features The use of automated software procedures to determine if the security controls implemented for protection of computer systems are being circumvented and to identify the potential source of the security breach.

Backup Procedures The provisions made for the recovery of data files and program libraries and for restart or replacement of ADP equipment after the occurrence of a system failure.

Baud Rate The rate at which data is being transmitted or received from a computer. The baud rate is equivalent to the number of characters per second times 10.

Block The unit of storage transferred to and from disk drives, typically 512, 1024, or 2048 bytes (characters).

Boot The process of starting up the computer.

BMI This is the patient's body mass index, which is calculated by dividing the person's weight in kilograms by the square of his height in meters.

Bulletin A canned message that is automatically sent by MailMan to a user when something happens to the database.

Byte A unit of computer space usually equivalent to one character.

CIOFO Chief Information Office Field Office, formerly known as Information Resource Management Field Office, and Information Systems Center.

Contingency Plan A plan which assigns responsibility and defines procedures for use of the backup/restart/recovery and emergency preparedness procedures selected for the computer system based on risk analysis for that system.

CORE A collection of VA developed programs (specific to PIMS, Pharmacy Service, and Laboratory Service) which is run at VA Medical Centers.

CPU Central Processing Unit, the heart of a computer system.

CRT Cathode Ray Tube, similar to a TV monitor but used in computer systems for viewing data. Also called a Video Display Terminal (VDT).

Cursor A visual position indicator (e.g., blinking rectangle or an underline) on a CRT that moves along with each character as it is entered from the keyboard.

Data Dictionary A description of file structure and data elements within a file.

Device A hardware input/output component of a computer system (e.g., CRT, printer).

Disk A magnetic storage device used to hold information.

Edit Used to change/modify data typically stored in a file.

Field A data element in a file.

File The M construct in which data is stored for retrieval at a later time. A computer record of related information (e.g., Patient file).

File Manager or FileMan Within this manual, FileManager or FileMan is a reference to VA FileMan. FileMan is a set of M routines used to enter, edit, print, and sort/ search related data in a file; a data base.

Focus Group Previously referred to as the Expert Panel, or SIUG (Special Interest User Group). A committee which advises programmers about the development of a particular system/package.

Global An M term used when referring to a file stored on a storage medium, usually a magnetic disk. In the Intake and Output software, for example, intake and output data is stored in one global, and patient data is stored in another global.

GMRV This signifies the General Medical Record namespace assigned to the Vitals/Measurements application.

GMRY This signifies the General Medical Record namespace assigned to the Intake and Output application.

Hardware The physical or mechanical components of a computer system such as CPU, CRT, disk drives, etc.

I&O Intake and output.

Intake/Output Type The type denotes from where the intake or output is derived, i.e., oral, intravenous, etc.

IRMS Information Resource Management Service.

IV Intravenously; by intravenous injection.

Kernel A set of software utilities. These utilities provide data processing support for the application packages developed within the VA. They are also tools used in configuring the local computer site to meet the particular needs of the hospital. The components of this operating system include: MenuMan, TaskMan, Device Handler, Log-on/Security, and other specialized routines.

Kilobyte More commonly known as Kbyte or "K". A measure of storage capacity equivalent to 1024 characters.

LAYGO An acronym for Learn As You Go. A technique used by VA FileMan to acquire new information as it goes about its normal procedure. It permits a user to add new data to a file.

M Formerly known as MUMPS or the Massachusetts (General Hospital) Utility Multi-Programming System. This is the programming language used to write all V*ISTA* applications.

MailMan An electronic mail, teleconferencing, and networking system.

Megabyte A measure of storage capacity; approximately 1 million characters. Abbreviated as Mbyte or Meg.

Memory A storage area used by the computer to hold information.

Menu A set of options or functions available to users for editing, formatting, generating reports, etc.

Menu Manager A part of the Kernel that allows each site to manage the various options or functions available to individual users.

ML Milliliters; a unit of volume used in the Intake and Output application.

Modem An electronic device which converts computer signals to enable transmission through a telephone.

Module A component of the nursing software application that covers a single topic or a small section of a broad topic.

Namespace A naming convention followed in the VA to identify various applications and to avoid duplication. It is used as a prefix for all routines and globals used by the application. The Intake and Output Package uses GMRY as its namespace.

Operating System The innermost layer of software that communicates with the hardware. It controls the overall operation of the computer such as assigning places in memory, processing input and output. One of its primary functions is interpreting M computer programs into language the system can understand.

Option A functionality that is invoked by the user. The information defined in the option is used to drive the menu system. Options are created, associated with others on menus, or given entry/exit actions. For example, the GMRVMGR is the main menu for the Vitals/Measurements application.

Package Otherwise known as an application. A set of M routines, files, documentation and installation procedures that support a specific function within V*IST*A (e.g., the ADT and Vitals/Measurements applications).

Password A protected word or string of characters that identifies or authenticates a user, a specific resource, or an access type (synonymous with Verify Code).

PIMS Patient Information Management System previously known as the MAS Package.

PO Per orum; refers to an item consumed orally or through the mouth.

Pointer A special data type of VA FileMan that takes its value from another file. This is a method of joining files together and avoiding duplication of information.

Port An outlet in the back of the computer into which terminals can be connected.

Printer A device for printing (on paper) data which is processed by a computer system.

Program A set of M commands and arguments, created, stored, and retrieved as a single unit in M.

Protocol A single entry point referencing multiple routine entry points to execute several inter related, required processes which perform specific functions. When multiple protocols are associated with a single procedure (i.e., intravenous lines or IV lines), they are found grouped under a single option.

Qualifier A word that gives a more detailed description of an item.

Queuing The scheduling of a process/task to occur at a later time. Queuing is normally done if a task uses up a lot of computer resources.

Response Time The average amount of time the user must wait between the time the user responded to a question at the terminal and the time the system responds by displaying data and/or the next question.

Restart/Recovery Procedures The actions necessary to restore a system's data files and computational capability after a system failure or penetration.

<RET> Carriage return.

Routine A set of M commands and arguments, created, stored, and retrieved as a single unit in M.

Risk Analysis An analysis of system assets and vulnerabilities to establish an expected loss from certain events based on estimated probabilities of the occurrence of such events.

Security Key A function which unlocks specific options and makes them accessible to an authorized user.

Security System A part of Kernel that controls user access to the various computer applications. When a user signs-on, the security system determines the privileges of the user, assigns security keys, tracks usage, and controls the menus or options the user may access. It operates in conjunction with MenuMan.

Sensitive Information Any information which requires a degree of protection and which should be made available only to authorized users.

Service Position A term used to categorize employees based on job descriptions. Examples of service positions are: staff nurse, LPN 5, NA 4, supervisor, clerk typist, etc.

Site Configurable A term used to refer to features in the system that can be modified to meet the needs of each site.

Software A generic term referring to a related set of computer programs. Generally, this refers to an operating system that enables user programs to run.

Subroutine A part of a program which performs a single function.

Task Manager or TaskMan A part of Kernel which allows programs or functions to begin at specified times or when devices become available. See Queuing.

Telecommunications Any transmission, emission, or reception of signs, signals, writing, images, sounds or other information by wire, radio, visual, or any electromagnetic system.

Terminal A device used to send and receive data from a computer system (i.e., keyboard and CRT, or printer with a keyboard).

UCI User Class Identifier. The major delimiter of information structure within the operating system.

User A person who enters and/or retrieves data in a system, usually utilizing a CRT.

Utility An M program that assists in the development and/or maintenance of a computer system.

VDT Video Display Terminal. Also called a Cathode Ray Tube (CRT).

Verify Code A unique security code which serves as a second level of security access. Use of this code is site specific; sometimes used interchangeably with a password.

V*IST*A Veterans Health Information Systems and Technology Architecture.

Vital Type A category of vital sign or measurement (e.g., pulse, respiration, blood pressure, temperature).